PRESERVICE TEACHERS BELIEFS ABOUT DEVELOPMENTALLY APPROPRIATE PRACTICES AND BEHAVIORAL TECHNIQUES AND PRACTICES IN EARLY CHILDHOOD TEACHER PREPARATION PROGRAMS

By

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TABLE OF CONTENTS

LIST OF TABLES

Abstract of Dissertation Presented to the Graduate School
of the University of Florida in Partial Fulfillment of the Requirements for the
Degree of Doctor of Philosophy

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The purpose of this study was to evaluate preservice teachers' beliefs about developmentally appropriate practices and behavioral techniques and practices. Specifically, this study investigates similarities and differences between early childhood education (ECE), early childhood special education (ECSE), and unified early childhood (Unified) teacher preparation programs. Previous research indicates that teachers' beliefs largely influence their behavior in the classroom. Exploring some of the similarities and differences in beliefs about developmentally appropriate practices and behavioral techniques and practices among preservice teachers in ECE, ECSE, and Unified teacher preparation programs may assist in curriculum development and training as well as continuing education for inservice teachers. Moreover, understanding these differences may help teacher preparation programs bridge the gap between the traditionally different disciplines of ECE and ECSE. Preservice teachers' beliefs about developmentally

appropriate practices and behavioral techniques and practices were assessed for 355 preservice teachers drawn from ECE, ECSE, and Unified teacher preparation programs using the Teacher Beliefs Scale (TBS) and the Behavioral Beliefs Scale (BBS). The results of this study indicated that preservice teachers in ECSE and Unified teacher preparation programs held similar beliefs about developmentally appropriate practices and behavioral techniques and practices. However, this study found that preservice teachers in ECE programs held significantly different beliefs about developmentally appropriate practices and behavioral techniques and practices when compared with preservice teachers in ECSE and Unified teacher training programs. Given these findings, it is imperative that the fields of ECE and ECSE work together to identify common beliefs and resolve belief differences if they are to successfully collaborate in meeting the needs of typically and atypically developing children.

CHAPTER I
INTRODUCTION

Introduction

Teachers' beliefs largely influence their behavior in the classroom (Bloom 1992, Charlesworth, Hart, Burts, & DeWolf, 1993 Clark & Peterson, 1986 Dunn & Kontos 1997 Hyson, Hirsch Pasek, & Rescola 1990 Lang 1996 Isenberg, 1996 Murphy 1982 Smith, 1992), therefore teachers beliefs are important to study understand define and modify Although in recent years, many attempts have been made to do so, no uniform conclusion about or definition of beliefs has emerged (Fang 1996, see also Richardson, 1996)

Generally a belief can be defined as some conception of reality containing enough validity or credibility or that is backed by enough experience to satisfy the individual holding the belief of its truth (Green 1971, Pajares, 1992, Richardson, 1996) Beliefs are generally formed or reinforced based on the experiences of the individual holding the belief As a result one would expect that they could be influenced by outside intervention However, because beliefs are also frequently comprised of or related to other constructs, such as belief systems, attitudes, perceptions values, opinions, judgments, rules principles, perceptions dispositions, and strategies, they are not easily modified (Malouf & Schiffer 1995 Pajares, 1992, Richardson, 1996)

Recent research has developed a number of conclusions about beliefs that provide important starting points for studying and analyzing teachers beliefs in early childhood

settings. Research on teachers' beliefs suggests that teachers develop their beliefs long before they enter teacher preparation programs (Lortie, 1975; Pajares, 1996; Richardson, 1996). Additionally, many research studies have recognized that teachers develop many of their deep-seated beliefs about teaching during their own formal education experiences (Lortie, 1975; Richardson, 1996). Lortie (1975) referred to this belief development experience as an "apprenticeship of observation."

Research on teachers' beliefs has also demonstrated that beliefs are very difficult to change or modify, particularly when teachers have held these beliefs for a long period of time (Abelson, 1979; Clark, 1988; Munby, 1982; Nespor, 1982; Nisbett & Ross, 1980; Pajares, 1992; Posner, Strike, Hewson, & Gertzog, 1982; Rokeach, 1968). Many of the beliefs teachers develop during the so-called apprenticeship of observation are carried forward unchanged into teacher preparation programs.

Although understanding teachers' beliefs is critical to the study of teachers' practices, very little is known about them. This is particularly true for teachers working with young children in segregated and inclusive educational settings (Carta, 1994; Charlesworth, Hart, Burts, & Hernandez, 1991; Charlesworth, Hart, Burts, Thomasson et al., 1993; File, 1994; Lieber et al., 1998; Hatch & Freeman, 1988; Isenberg, 1990; Spodek, 1988). The systematic study of teachers' beliefs is likely to yield tremendous insight into the causes of teachers' behavior and practice, which may help teacher educators to change classroom dynamics or develop appropriate preservice teacher training programs.

Purpose of the Study

The purpose of this study was to evaluate preservice teachers' beliefs about developmentally appropriate practices and behavioral techniques and practices

Specifically the study investigates differences and similarities in these beliefs between three groups early childhood education (ECE) early childhood special education (ECSE) and unified early childhood (Unified) teacher preparation programs The results of this study may then be used to make recommendations for preservice teacher education in ECE, ECSE, and Unified teacher preparation programs, particularly with reference to developmentally appropriate practices and behavioral techniques and practices Given the findings of Sexton (1998) that there were no significant differences in the beliefs about developmentally appropriate practices held by early childhood and early childhood special educators, further research on particular types of practices theorized to be controversial is warranted Particularly since Sexton (1998) found a significant difference between teachers' beliefs about two behavioral techniques.

Importance to Teacher Education

This study will not only aid in the understanding of beliefs about developmentally appropriate practices and behavioral techniques and practices but it will also aid in developing appropriate training experiences for ECE, ECSE, and Unified teacher preparation programs It should further aid in the understanding of differences in preservice teachers beliefs among the types of programs studied, which should also aid in the development of appropriate programmatic changes by teacher educators and administrators particularly in light of the recent trend towards inclusion in early childhood education

Research Questions

The following questions will be addressed

1. What beliefs do preservice teachers in ECE, ECSE, and Unified teacher preparation programs hold about developmentally appropriate practices?
2. Are there significant differences in beliefs about developmentally appropriate practices between preservice teachers in ECE, ECSE, and Unified teacher preparation programs?
3. Are there statistically significant and noteworthy relationships between beliefs about developmentally appropriate practices and individual characteristics (e.g., chronological ages, ethnicity) of early childhood preservice teachers?
4. What beliefs do preservice teachers in ECE, ECSE, and Unified teacher preparation programs hold about the use of behavioral techniques and practices?
5. Are there significant differences in beliefs about behavioral techniques and practices between preservice teachers in ECE, ECSE, and Unified teacher preparation programs?
6. Are there statistically significant and noteworthy relationships between beliefs about behavioral techniques and practices and individual characteristics (e.g., chronological ages, ethnicity) of early childhood preservice teachers?

Summary and Overview of Remaining Chapters

This study addressed (a) ECE preservice teachers' beliefs about developmentally appropriate practices, (b) ECSE preservice teachers' beliefs about developmentally appropriate practices (c) Unified preservice teachers' beliefs about developmentally appropriate practices, (d) ECE preservice teachers' beliefs about behavioral techniques and practices (e) ECSE preservice teachers' beliefs about behavioral techniques and practices, and (f) Unified preservice teachers' beliefs about behavioral techniques and practices. Despite the importance of teachers' beliefs, little research has been devoted to examining the beliefs of early childhood preservice teachers (see Carta, 1994; Charlesworth et al., 1991, Charlesworth, Hart, Burts, Thomasson et al., 1993; File, 1994; Lieber et al., 1998; Hatch & Freeman, 1988; Isenberg, 1990). This research is a step toward enhancing the knowledge base on teachers' beliefs, specifically those that work with young children.

Chapter 2 provides a review and analysis of relevant literature from the following areas: teachers' beliefs, ECE teacher preparation programs, ECSE teacher preparation programs, Unified teacher preparation programs, developmentally appropriate practices and behavioral techniques and practices. Chapter 3 contains a description of the research methodology and procedures used in this study. Chapter 4 describes the results of this study. The final chapter (Chapter 5) discusses the results of the study in light of previous research. Additionally, it discusses the scope and limitations of this study and the implications for teacher education and future research.

CHAPTER 2
LITERATURE REVIEW

Introduction to Teachers' Beliefs

Of the many constructs studied in educational psychology and practice, teachers' beliefs are some of the most important, yet most elusive, to researchers. Teachers beliefs largely influence how teachers perceive, process, and act in their classroom (Bloom 1992; Charlesworth, Hart, Burts, Thomasson et al. 1993; Clark & Peterson, 1986; Fang, 1996; Dunn & Kontos, 1997; Hyson, Hirsch-Pasek, & Rescorla, 1990; Isenberg, 1996; Munby, 1982; Smith, 1992). Therefore, as an element of the causes of teacher behavior it is important to understand teachers' beliefs (Richardson, 1996, see also Pintrich, 1990). The difficulty in understanding teachers beliefs generally lies in how they are defined, how they are studied, and how they relate to other constructs and phenomena, many of which are themselves difficult to study or quantify.

While many researchers have studied constructs variously defined as "belief," no uniform definition has emerged (Richardson, 1996). Generally, a belief is a conception of some reality containing enough validity or credibility, or that is backed by enough experience, to satisfy the individual holding the belief of its truth (Green, 1971; Pajares, 1992; Richardson, 1996). It is usually temporally and contextually bound and strongly guides thought, behavior, and action (Fang, 1996; Harvey, 1986; Pajares, 1992). Pajares (1992) suggests that confusion about beliefs usually relates to the distinction between beliefs and knowledge. Beliefs are generally based on evaluation and judgment while

knowledge is generally based on objective fact (see also Nespor 1987 Richardson 1996) Also beliefs are thought to have more affective and evaluative components than knowledge (Pajares, 1992, Malouf & Schiller 1995) Thus, how teachers operationalize beliefs, as opposed to knowledge, further defines beliefs characteristics Of course, what is meant by teachers' beliefs is difficult to pinpoint with precise accuracy

Beliefs also comprise or are related to other constructs, such as belief systems attitudes perceptions, values opinions, judgments, rules principles, preconceptions dispositions and strategies (Malouf & Schiller 1995 Pajares 1992 Richardson 1996) The extent to which these constructs guide and control thought and behavior has been the subject of study in education for the last five decades (i e since the 1950s) Most of the studies attempt to link teachers' beliefs and similar constructs (e.g., attitudes) to their educational practices (Richardson, 1996) It has only been in recent years (i e the last 15) that teacher education research has began to examine teachers beliefs more thoroughly (Fang, 1996 see also Richardson, 1996) Although research on teachers beliefs and attitudes received minimal attention between the early 1950s and the early 1970s (Richardson 1996) there has been a surge of interest in beliefs in recent years (Richardson 1996) Research studies have developed a number of conclusions about beliefs that provide important starting points for studying and analyzing teachers beliefs in early childhood settings

Research on Teachers' Beliefs

Acquisition of Beliefs

Research on teachers' beliefs has demonstrated that beliefs are often acquired well before teachers have undergone formal training in education (Lortie. 1975 Pajares, 1996 Richardson 1996 Tatto 1998) Many studies have suggested that preservice teachers

develop a number of beliefs about educational practice from a so-called "apprenticeship of observation" that occurs during their own formative educational experiences (Lortie, 1975; Malouf & Schiller, 1995; Pajares, 1996; Richardson, 1996). In fact, most theories used by teachers are derived from personal experience (Kemple, 1995; Richardson, 1996; Spodek, 1988). For most teachers, this process of cultural transmission gradually occurs long before teacher education has even been given the opportunity to make its mark. Furthermore, preservice classroom experience and reflection on that experience often influences teachers' beliefs (Brousseau, Book, & Byers, 1988; Cherland, 1989; Fang, 1996; Richards, Gipe, & Thompson, 1987).

Perseverance of Beliefs

Research on teachers' beliefs has demonstrated that beliefs -- held over long periods of time -- are very difficult to change (Abelson, 1979; Clark, 1988; Munby, 1982; Nespor, 1987; Nisbett & Ross, 1980; Pajares, 1992; Posner et al., 1982; Rokeach, 1968). Pajares (1992) describes this as the perseverance principle. Beliefs acquired during the apprenticeship of observation and generally held by preservice teachers often remain unchanged throughout the teacher preparation process and carry forward in classroom experience (Malouf & Schiller, 1995; Pajares, 1992). Such resistance to changes in beliefs explains why many practices considered to be developmentally inappropriate persist despite efforts at teacher education and training regarding more developmentally appropriate practices. Research also suggests that teachers' beliefs often persist despite contradictory information or recognition of incomplete knowledge (Abelson, 1979; Buchmann, 1984, 1987; Buchmann & Schwille, 1983; Clark, 1988; Florio-Ruane & Lensmire, 1990; Ginsburg & Newman, 1985; Lasley, 1980; Lortie, 1975; Malouf & Schiller, 1995; Munby, 1982; Nespor, 1987; Nisbett & Ross, 1980; Pajares, 1992; Posner

et al. 1982 Richardson 1996 Rokeach 1968; Schommer, 1990, Van Fleet, 1979 Wilson 1990)

Influence on Practice

Research suggests that teachers beliefs strongly influence behavior (Bloom 1992 Charlesworth Hart, Burts Thomasson et al 1993 Dunn & Kontos 1997 Fang, 1996 Hyson, Hirsh Pasek & Rescorla, 1990- Isenberg, 1996 Smith, 1992 see also Abelson, 1979 Bandura 1986 Brown & Cooney 1982 Charlesworth et al 1991 Clark & Peterson, 1986 Eisenhart, Shrum, Harding & Cuthbert, 1988 Ernest, 1989, Goodman 1988 Harvey 1986, Kagen & Smith, 1988 Kilgo et al 1999 Kitchener 1986 Lieber et al., 1994 Malouf & Schiller 1995 Nespor 1987 Nisbett & Ross, 1980 Rokeach 1968, Smith & Shepard 1988 Spodek, 1988 Spidell, 1988 Tabachnick & Zeichner 1984) However other research has shown that occasionally some teachers employ practices that are inconsistent with their beliefs (Kontos & Dunn, 1993). This is exemplified by research studies (e.g. Charlesworth Hart Burts, & DeWolf 1993 Hatch & Freeman, 1988 Rusher McGrenn & Lambiotte 1992) indicating that district policies or principal directives inconsistent with a teachers beliefs may be followed by teachers This may have to do with other beliefs held by the teacher including the belief that adherence to authoritative demands is an important value

Green (1971) suggested that it is quite possible for individuals to hold beliefs that are incompatible Green postulated that individuals hold beliefs in clusters Each belief cluster falls within a larger belief system Therefore beliefs that are contradictory may be part of different belief clusters. Green further posited that conflicting beliefs may persist if they are never compared and examined for consistency

Study of Beliefs

The extent to which the literature has discussed these themes in relating teachers' beliefs to teachers' practices suggests the importance of further research in this area. Currently very little is known about the beliefs of teachers working with young children in inclusive or segregated educational settings (Carta, 1994, Charlesworth et al. 1991 Charlesworth, Hart, Burts, & Dewolf, 1993 File 1994, Lieber et al. 1998, Hatch & Freeman, 1988 Isenberg, 1990, Spodek 1988) However teachers' beliefs are crucial considerations in understanding teachers' practices and integral aspects of successful teaching (Isenberg 1990; Richardson, 1996) Thus, further research is warranted in this area.

In the past, research on teachers' beliefs has relied upon a variety of measures (e.g., interviews, questionnaires, observations see Charlesworth et al., 1991 Charlesworth, Hart, Burts & DeWolf 1993 Charlesworth, Hart, Burts Thomasson et al., 1993 Erwin & Kontos 1998 File 1994 Kemple, Hysmith & David 1996 Hatch & Freeman, 1988, Kagan & Smith, 1988 Porter & Potenza, 1988 Smith, 1992, Spodek 1988 Stipek & Byler 1997 Wing, 1989) Currently, interviews and observations are two of the most frequently employed measures (Richardson 1996) However, many of the research studies on early childhood teachers' beliefs have additionally utilized questionnaires and rating scales (see Charlesworth et al., 1991, Charlesworth, Harts Burts, & DeWolf 1993 Charlesworth, Harts, Burts, Thomasson et al 1993, Erwin & Kontos, 1998 File 1994 Kagan & Smith, 1988 Kemple, Hysmith & David, 1996 Smith 1992 Stipek & Byler 1997). All of these research approaches (e.g., interviews, observations, questionnaires rating scales) are appropriate and promising (Pajares, 1992) Ultimately the approach employed depends on the researchers' question and how the

researchers wish to explore it (Pajares, 1992). Currently, new innovative techniques, such as the use of multiple measures, are providing researchers with better tools to explore and assess teachers' beliefs.

Measuring and assessing preservice teachers' beliefs is critical to understanding them, and is yet even more important to the process of developing appropriate preservice training programs (See Tatto, 1998). Assessing beliefs of preservice teachers from different types of teacher preparation programs provides an opportunity to compare beliefs among early childhood educators.

Early Childhood Teacher Preparation Programs

Early childhood education (ECE) teacher preparation programs train preservice teachers to work with young children in a variety of settings. Currently, three distinct teacher preparation programs have emerged in the United States: early childhood education (ECE) teacher preparation programs, early childhood special education (ECSE) teacher preparation programs, and unified early childhood (Unified) teacher preparation programs. Bredekamp (1993) noted that these three early childhood teacher preparation programs are often separated physically and philosophically. Following is a brief discussion on each type of teacher preparation training program.

Early Childhood Education Teacher Preparation Programs

Early childhood education (ECE) teacher preparation programs train preservice teachers to serve typically developing children from birth to age eight. These programs have undergone considerable change since their emergence in the late 1800s (Spodek & Saracho, 1990). Currently, the National Association for the Education of Young Children (NAEYC) is the primary organization establishing professional guidelines for early childhood education (Burton, Hains, Hanline, McLean, & McCormick, 1992). The

NAEYC first began making efforts to establish preferred practice guidelines in 1981. Shortly thereafter, it developed policies and procedures for the voluntary accreditation of early childhood programs (Burton et al. 1992). Historically, ECE teacher preparation programs have been rooted in constructivism. Even today, constructivism dominates educational philosophy in these programs (Smith & Bredekamp, 1998; see also Wolery, Werts, & Holcombe, 1994; Wolery & Wilbers, 1994). Thus, ECE teacher preparation programs typically are not grounded in behavioral theory.

Early Childhood Special Education Teacher Preparation Programs

Early childhood special education (ECSE) teacher preparation programs train preservice teachers to serve children from birth to age eight with special needs. Traditionally, many ECSE teacher preparation programs have been largely grounded in behavioral theory (Smith & Bredekamp, 1998; see also Wolery et al., 1994; Wolery & Wilbers, 1994). This is largely due to the inherent challenges faced by ECSE teachers in disciplinary and motivation matters. Just as NAEYC has been the primary organization establishing guidelines for ECE, the Division of Early Childhood (DEC), Council for Exceptional Children has been the primary organization establishing guidelines and ensuring a level of beginning and continuing professional competence within ECSE (McCollum, McLean, McCartan, & Kaiser, 1989). DEC has developed and established recommended practices for professionals working with young children with special needs. These practices support the use of behavioral techniques and practices (DEC Task Force on Recommended Practices, 1993).

Unified Early Childhood Teacher Preparation Programs

Unified early childhood (Unified) teacher preparation programs prepare preservice teachers to serve all children, including those with special needs. These

programs typically draw upon philosophy and practice from both the fields of ECE and ECSE (Burton et al., 1992; Gargiulo et al., 1997). In many ways, Unified teacher preparation programs are ideal because the knowledge base and practices in ECE and ECSE are very similar (e.g., both work with young children at various developmental levels and should possess the ability to establish positive, meaningful relationships with families) (Appl, 1995; Gargiulo, Sinder, & Streitenberger, 1997; Kemple, Hartle, Correa, & Fox, 1994; Lowenthal, 1992). Furthermore, professionals in the fields of ECE and ECSE have voiced their support of Unified teacher preparation programs by positing that the time has arrived to end segregated categorical teacher preparation programs (Burton et al., 1992; DEC Task Force on Recommended Practices, 1993; Gargiulo & Sinder, 1997; Miller, 1992; NAEYC, 1996; see also Brudekamp, 1993; Myers, Griffin, Telleker, Taylor, & Wheeler, 1998; Lowenthal, 1992; Safford, 1989). In fact, contemporary research refutes a categorical approach to teacher preparation training (Gartner & Lipsky, 1987; Miller, 1992). Unified teacher preparation programs have the potential to train early childhood teachers to meet the individual needs of children in a variety of settings (Gargiulo et al., 1997). With full inclusion, more and more children with special needs are being included in early childhood programs designed for typically developing children (Gargiulo et al., 1997; Sexton, 1998; Wolery, Brookfield et al., 1993; Wolery, Holcombe et al., 1993; Wolery, Holcombe-Ligon et al., 1993; Wolery, Schroeder et al., 1994). As a result, "early childhood educators are going to become increasingly responsible for teaching young children with special needs" (Gargiulo et al., 1997, p. 137). The concept of collaboration across the fields of ECE and ECSE holds a great deal of promise (Myers et al., 1998). Teachers trained in these programs will be prepared to

provide early education services which are developmentally and individually appropriate (Gargiulo & Sluder 1997) As a result of their teacher preparation training, they are able to draw upon effective practices from the fields of ECE and ECSE

Differences in Early Childhood Education and Early Childhood Special Education Teacher Training Programs' Practices, Goals, and Outcomes

Historically, educational philosophy and practice have differed between ECE and ECSE (Bredekamp 1993, Burton et al 1992 Wolery & Wilbers, 1994) As discussed earlier ECE education has been traditionally grounded in constructivism while ECSE has been largely based on behavioral theory (Smith & Bredekamp, 1998, see also Wolery Werts, & Holcombe 1994, Wolery & Wilbers 1994) More often than not, ECE and ECSE have maintained separate programs and services Thus, it was possible for ECE and ECSE educators to keep their educational philosophies and practices separate (Smith & Bredekamp 1998) However in recent years more children with special needs are being included in early childhood classrooms (Sexton, 1998 Wolery Brookfield et al 1993 Wolery, Holcombe et al 1993 Wolery, Holcombe-Ligon et al 1993 Wolery Schroeder et al 1994) resulting in professionals from a variety of fields working together This sometimes results in the blending of techniques and practices (See Kilgo et al 1999) However at other times it results in heated debates on appropriate practice (Smith & Bredekamp 1998 see also Bredekamp 1993 Carta, 1994, Carta, 1995, Carta & Schwartz, Atwater & McConnell 1991, Carta, Atwater, Schwartz, & McConnell 1993, Johnson & Johnson 1992, Johnson & Johnson, 1993 Johnson & Johnson, 1994) Unfortunately many perceive some of the most commonly used techniques and practices in the fields of ECE and ECSE as incompatible For example some behavioral techniques (e.g tangible rewards) used in ECSE have been criticized by ECE educators

(Mounts & Roopnarine, 1987, see also Wolery & Bredekamp 1994) Smith & Bredekamp (1998) suggest that the techniques and practices utilized within the two fields should not be perceived as incompatible but as complimentary representing different points on a continuum (see also Appl 1995 Bredekamp & Rosegrant, 1995 Kemple et al., 1994 Lowenthal 1992) Furthermore Smith & Bredekamp (1998) propose that a wide range of strategies can be viewed as appropriate and that techniques and practices should be selected and tailored to meet the individual needs of the child(ren)

The differences between ECE and ECSE educators beliefs about developmentally appropriate practices, specifically those held about behavioral techniques and practices, has drawn little empirical research although they are easily perceived from a review of contemporary literature from both fields However what is meant by developmentally appropriate practices and behavioral techniques and practices requires some discussion before beliefs about them can be evaluated.

Developmentally Appropriate Practice

The NAEYC (the largest organization of early childhood educators) has as its mission "to act on behalf of children by improving the quality of programs and raising public awareness about what constitutes good quality" (Bredekamp 1997, p 39) In 1987 in response to a growing trend toward more formal academic instruction in the early childhood classroom the NAEYC published its position on Developmentally Appropriate Practice (DAP) guidelines (Bredekamp 1997 Carta, 1995, see also Gestwicki 1999) These guidelines attempted to clarify types of developmentally appropriate and inappropriate practices for children between birth and age eight (Bredekamp 1987) Of course it would be impossible for NAEYC to describe all appropriate and inappropriate practices. Therefore NAEYC has only attempted to agree

on some reasonable and reliable principles to guide early childhood professionals in their decision making (Bredekamp 1997) Essentially the DAP guidelines attempt to assist professionals in ECE classrooms in making judgments by informing their decision making (Gestwicki 1999)

NAEYC indicates that the DAP Guidelines are based on child development knowledge (Bredekamp & Copple 1997) NAEYC taking the position that 'programs designed for young children should be based on what is known about young children" (Bredekamp & Copple 1997 p v) Considering child development knowledge is essential for ECE teachers, because it assists them in understanding how children learn As a result, early childhood teachers can better structure the learning environment so that children are presented with experiences that are engaging, achievable, and challenging (Gestwicki 1999). In summary developmentally appropriate practice decisions are ones based on child development knowledge, each individual child, the child's family and the child s culture (Bredekamp & Copple, 1997 Gestwicki, 1999)

In 1987 the release of the DAP guidelines sparked numerous debates among ECE educators regarding the clarity and interpretation of the practices presented (Bredekamp, 1997 Bredekamp & Copple 1997 see also Kessler 1991 Mallory & New 1994 Swadener & Kessler 1991) Many ECE educators felt that NAEYC had oversimplified the concept of DAP (Bredekamp 1997) These debates and professional literature on this topic contributed to a new knowledge base NAEYC responded to this new information by revising its position statement, which was released in 1997

The newly released guidelines (Bredekamp & Copple 1997) expand and clarify the definition of developmentally appropriate practice (Bredekamp, 1997). In the revised

guidelines, NAEYC pointed that developmentally appropriate practice builds on three important kinds of information and knowledge (a) "what is known about child development and learning, (b) what is known about the strengths interests, and needs of the individual children in the group, and (c) knowledge of the social and cultural contexts in which children live" (NAEYC 1997 p 9) Furthermore these guidelines describe a continuum of teaching practices by including more examples of inappropriate and appropriate practices than the previous guidelines released ten years earlier The newly revised DAP guidelines suggest that teachers should find the appropriate balance between adult-initiated and child-initiated learning in the ECE classroom Thus, ECE teachers are not overly passive or overly directive (Bredekamp, 1997) Bark & Winsler (1995) suggest that the role of the developmentally appropriate classroom is a complex one that includes collaboration, support, reflection instruction, modeling direction, and co-construction of knowledge

Unfortunately developmentally appropriate practice has often been misinterpreted Many individuals in ECE have interpreted the DAP guidelines as a curriculum However developmentally appropriate practice is not a curriculum it is not a rigid set of standards that dictate practice Rather, it is a framework, a philosophy or an approach to working with young children" (Bredekamp & Rosegrant, 1992 p 4) In addition, some have interpreted the DAP guidelines as hostile to behavioral techniques and practices (see Duncan, Kemple & Smith, 2000) However the concept of a continuum of appropriate practices precludes any categorical exclusion of particular techniques and practices

Behavioral Techniques and Practices

Behavioral theory holds that behaviors acquired and displayed by young children can be attributed almost exclusively to their environment. Behaviorists believe that by improving children's environments and selecting appropriate teaching practices and materials young children can be taught to develop almost any competency (Peters, Neisworth, & Yawkey, 1986; Schloss & Smith, 1998). Behavioral theorists assert that all behavior is sandwiched between antecedent and consequent events and that the nature and quality of these events determines future behaviors (Craighead, Kazdin, & Mahoney 1976; Kazdin, 1994; Peters et al., 1986; Schloss & Smith, 1998). Thus, they suppose, one can engineer behavior changes in directions deemed appropriate by the child, school, and even society by simply managing the environment of children.

The extension of experimental methods of behavioral theory to applied settings, such as the classroom, has generated a relatively new area of research known as applied behavior analysis (Baer, Wolf, & Risley, 1968; Kazdin, 1977, 1994). Applied behavior analysis was first identified by Baer, Wolf, and Risley in the first Journal of Applied Behavior Analysis in 1968 (Kazdin, 1977, 1994). Specifically, Baer, Wolf, and Risley (1968) defined applied behavior analysis as the "process of applying sometimes tentative principles of behavior to the improvement of specific behavior and simultaneously evaluating whether or not any changes noted are indeed attributable to the process of application" (p. 91). Baer and colleagues' definition explicitly distinguished applied behavior analysis from previous basic operant research both in terms of methodology and substance (Kazdin, 1977). Historically, applied behavior analysis has been grounded in Watson's and Pavlov's behavioral theories, which hold that all behaviors are merely learned responses to environmental stimuli. However, applied behavior analysis draws

from the theories of respondent conditioning, operant conditioning and model learning (Brown, Przywansky & Shnite, 1995, Schloss & Smith, 1998)

Applied behavior analysis is generally concerned with increasing or decreasing specific behaviors and then maintaining those behavioral changes under current environmental conditions (Deitz & Repp 1983 Kazdin, 1977 1994 Martin & Pear 1988 Schloss & Smith 1998) Surprisingly only 2% of the field of applied behavior analysis is concerned with reducing maladaptive behavior (Deitz & Repp 1983 Repp 1983) However this area still remains of vital interest to many researchers Reducing maladaptive behaviors is also of primary concern to clinicians and teachers Applied behavior analysis concerned with reducing maladaptive behavior usually involves one of three principles reinforcement, extinction, or punishment (Schloss & Smith, 1998) Historically, punishment procedures have been widely used to reduce inappropriate behaviors However in recent years numerous complex legal and ethical issues have arisen regarding the use of these procedures (Deitz & Repp, 1983, Kazdin, 1978 Kazdin 1994 Martin & Pear, 1988 Polsgrove & Rieth 1993 Schloss & Smith, 1998) As a result, researchers have sought to develop less controversial alternative methods of reducing behaviors through the application of reinforcement. Such procedures have been referred to as positive reductive behaviors or reinforcement based reductive procedures (Deitz & Repp 1983) In addition to avoiding many of the controversial issues surrounding the application of aversive reduction techniques positive reduction techniques frequently result in the application of the principles of applied behavior analysis, as they focus on reinforcing improved behavior (Deitz & Repp, 1983) Furthermore there has been a recent emphasis on more antecedent based techniques,

rather than consequence based methods leading professionals to focus less on the manipulation of consequences than has been typical of behavioral techniques and practices (Horner et al 1990) These antecedent based methods focus on the conditions that occur immediately before the target behavior (Wolery, Bailey & Sugai 1988) These antecedent based methods are considered less controversial than traditional behavioral methods

Applied Behavior Analysis in the Early Childhood Classroom

Applied behavior analysis is frequently used by many professionals in education including those in early childhood settings (e.g. teachers, guidance counselors, school psychologists, Griegler 1977, Schloss & Smith, 1998) In fact, applied behavior analysis has been applied more in classrooms than in any other setting (Kazdin, 1978) To the chagrin of its detractors, researchers have continually demonstrated that applied behavior analysis techniques and practices are successful in public school settings with diverse populations, including preschool, elementary secondary collegiate and children with special needs (Gordan & Browne, 1989 Kazdin, 1977 1985 Martin & Pear 1988 Mounts & Roopnarine 1987 Schloss & Smith, 1998) Because applied behavior analysis has been demonstrated as effective in preventing and remedying problematic behaviors in the classroom setting, valuable instruction time is increased as teachers no longer have to interrupt, postpone or delay lessons to deal with problematic behaviors (e g ..students not completing assignments failing to follow directions, inattention, arguing, fighting, Schloss & Smith, 1998)

Advantages for Classroom Application

Behavioral theory and applied behavior analysis techniques and practices offer many distinct advantages over other frequently used models (e.g. psychodynamic

medical ecological) implemented in the classroom (Kazdin, 1977; Schloss & Smith 1998) Applied behavior analysis techniques and practices can be used by most school personnel Training of personnel to implement applied behavior analysis can usually be accomplished quickly and easily through coursework and supervised practice, and the resources necessary to implement these techniques are normally minimal and readily available (Schloss & Smith, 1998 Wolery 1994) Applied behavior analysis also requires a continual evaluation process. During this evaluation process the value of techniques, practices, and materials being used are assessed Thus evaluation facilitates the effective use of teacher and student time because ineffective techniques, practices, and materials are revised or discarded (Schloss & Smith 1998)

Criticisms for Classroom Application

Although the merits of behavior analysis techniques and practices in classroom settings have been widely recognized like many areas in which applied behavior analysis has been implemented, there has been criticism related to its use (Schloss & Smith, 1998). Some professionals including ones in ECE and ECSE, view applied behavior analysis techniques and practices as "inappropriate" (Strain et al 1992) In fact there has been an ongoing debate on the appropriateness of applied behavior analysis techniques and practices among professionals in various early childhood settings (Strain et al , 1992)

Some professionals argue that each individual has the right to choose how to behave Therefore applied behavior analysis techniques and practices that attempt to change an individual's behavior are in violation of his or her own free will (Martin & Pear, 1988 Schloss & Smith, 1998). Martin and Pear (1988) provided an eloquent response to this concern by pointing out that changing a student's behavior is the major

goal of education. It is doubtful that anyone would argue that it is inappropriate to teach a child to add or subtract, which is a form of behavior change.

Some educators are concerned with specific techniques and practices utilized in applied behavior analysis. While this may be of legitimate concern, these fears can be allayed by careful consideration of the student's age, the severity and longevity of the problem, the previous efforts that have failed to solve it, and the possible effectiveness of the technique in solving the problem. Furthermore, techniques and practices should be monitored and evaluated continuously (Schloss & Smith, 1998). Failure to carefully monitor and evaluate techniques can result in the misuse of behavioral techniques and practices. For example, it would be inappropriate to "control" children by only utilizing behavioral techniques and practices rather than providing stimulating, developmentally appropriate activities that engage children.

Finally, some have described applied behavior analysis techniques and practices, such as reinforcement, as bribery (Kazdin, 1975; Kohn, 1993; Schloss & Smith, 1998; Zirpoli, 1995). These individuals argue that students should not have to be paid to behave or complete certain tasks, but rather that students should do these things because they are the right thing to do (Schloss & Smith, 1998; Stainback, Payne, Stainback, & Payne, 1973; Sulzer-Azaroff & Mayer, 1997). Kazdin (1975) argued that individuals who confuse reinforcement and bribery do not clearly understand the definition and intent of each, stating:

> Bribery refers to the illicit use of rewards, gifts, or favors to pervert judgment or corrupt the conduct of someone. With bribery, reward is used for the purpose of changing behavior, but the behavior is corrupt, illegal or immoral in some way. With reinforcement, as typically employed, events are delivered for behaviors which are generally agreed upon to benefit the client, society, or both. (p. 50)

Kazdin's argument suggests that there are clear distinctions between bribery and giving reinforcement for appropriate behaviors. Zirpoli and Melloy (1993) further suggest that if one fails to give children their attention during appropriate behaviors, it is likely that they will try to get attention with inappropriate behavior. Most would agree that children behave themselves and complete tasks because it is the right thing to do, however all acknowledge that some children require assistance in learning to do this. Reinforcers can enhance this learning over time (Schloss & Smith, 1998). In fact, the use of behavioral techniques and practices, such as reinforcement, does not preclude FCE and ECSE educators from providing children with a developmentally appropriate classroom (see Bredekamp & Copple, 1998) that is fun, engaging, and exciting (Wolery, 1994).

In addition to the above criticisms, Lepper & Greene (1975) argued that reinforcing educational performance with rewards negatively impacts on students intrinsic motivation (see also Greene & Lepper, 1974a, 1974b). In particular, they criticized the use of tangible rewards for this very reason. Lepper and Greene (1975) conducted a series of experiments, in preschool and elementary classrooms, that "studied the effects of offering a child a tangible reward to engage in an initially interesting task on his subsequent intrinsic motivation to engage in that task in the absence of any expectation of external rewards" (p. 256; see also Greene and Lepper, 1974a, 1975b). The results of these experiments suggested that the use of external rewards can undermine intrinsic motivation (Lepper & Greene, 1975). However, a recent meta-analysis (Cameron & Pierce, 1994) of the literature on rewards and intrinsic motivation has debunked Lepper and Greene's conclusion that intrinsic motivation is reduced by rewards, at least where such rewards are made contingent on performance or given

unexpectedly (Cameron & Pierce, 1994, 1996; Eisenberg & Cameron, 1996; 1998). Thus, expected rewards which are not contingent on performance may have a negative effect on intrinsic motivation (Cameron & Pierce, 1994; 1996; Eisenberg & Cameron, 1996; 1998). According to Cameron and Pierce's (1994) meta-analysis of over 20 years of research, a tangible reward system that is contingent on performance will not have a negative effect on children's intrinsic motivation. In fact, results of their meta analysis, including all relevant studies on the topic, indicated that external rewards can be used to maintain or enhance intrinsic motivation in activities. Their results clearly suggested that the negative effects of rewards occur under very limited conditions such as when tangible rewards are given without regard to level of performance.

Behavioral Interventions

The principles of reinforcement, extinction, and punishment are the working tools of the early childhood professional in crafting and implementing appropriate behavioral techniques and practices (Schloss & Smith, 1998). Understanding these principles and how to use them appropriately as tools is a first step in understanding the implications that applied behavior analysis has for use in the school setting.

Reinforcement

Reinforcement is one of the primary tools of applied behavior analysis. Two types of reinforcement -- positive and negative -- act to strengthen behaviors (Craighead et al., 1976; Peters et al., 1986; Schloss & Smith, 1998). A particular behavior is said to be positively reinforced when the behavior is followed by the presentation of a reinforcer (e.g., praise, money) which increases the frequency of that particular behavior (Craighead et al., 1976; Martin & Pear, 1988; Peters et al., 1986; Schloss & Smith, 1998). Positive reinforcers may be used to strengthen a variety of behaviors. In contrast, negative

reinforcers generally attempt to increase the desired behavior by removing something unpleasant (e.g., escaping an argument, receiving an inferior grade). Reinforcement is also an effective method for reducing inappropriate behavior by reinforcing positive alternatives to the undesired behavior (Webber & Scheuermann, 1991). Research has demonstrated that young children's behaviors, appropriate and inappropriate, increase when they are positively reinforced (Wolery, 1994). Best practice dictates that teachers use a variety of reinforcement procedures to reward and encourage students (Schloss & Smith, 1998). Furthermore, reinforcement is effective in supporting children's development and learning in the early childhood classroom (Wolery, 1994).

There are several types of reinforcers that are frequently used by early childhood teachers. Generally, reinforcers can be placed within one of three categories: social, activity, and tangible.

Social Reinforcers. Teachers employ social reinforcers when they use interpersonal interactions as a reinforcer (Schloss & Smith, 1998). Social reinforcers can be verbal or nonverbal (Alberto & Troutman, 1986; Sulzer-Azaroff & Mayer, 1991). Some examples of commonly used social reinforcers include praise, hugs, smiles, and pats on the back. Research has demonstrated that social reinforcers are very effective when used appropriately (Sulzer-Azaroff & Mayer, 1991). One of the major advantages of social reinforcers is that they are convenient, practical, and not very intrusive (Alberto & Troutman, 1986; Sulzer-Azaroff & Mayer, 1991). In addition, social reinforcers can be easily paired with other types of reinforcers such as activity and tangible (Sulzer-Azaroff & Mayer, 1991). Social reinforcers are the most frequently employed type of reinforcer.

In early childhood classrooms. Furthermore, teachers display less resistance to using social reinforcers than activity or tangible reinforcers (Sulzer-Azaroff & Mayer, 1992).

Activity Reinforcers. Teachers employ activity reinforcers when they use access to an enjoyable activity as a reinforcer (Sulzer-Azaroff & Mayer, 1991). Some examples of commonly used activity reinforcers include extra playground time, being classroom helper or any other special privilege (Sulzer-Azaroff & Mayer, 1991). When teachers utilize activity reinforcers they employ a "special" activity immediately following the behavior they want to increase. Activity reinforcers are the second most frequently employed reinforcer in the early childhood classroom (Alberto & Troutman, 1990). This is because they are less intrusive and more transferable than tangible reinforcers (Sulzer-Azaroff & Mayer, 1991).

Tangible Reinforcers. Teachers employ tangible reinforcers when they use any material or edible item as a reinforcer (Harlan, 1996). Some commonly used tangible reinforcers in early childhood settings include small prizes, trinkets, toys, tokens, candy and various foods. Tangible reinforcers are often the most powerful type of reinforcer. In fact, when used appropriately they almost always guarantee immediate success (Alberto & Troutman, 1990; O'Leary, Poulos, & Deme, 1972), even when social activity reinforcers have been unsuccessful. Furthermore, tangible reinforcers can be used to modify a variety of behaviors. Unfortunately, tangible reinforcers are very intrusive and often require more teacher time and commitment than social and activity reinforcers. As a result, the use of tangible reinforcers with young children has been highly controversial. They are frequently used as a "last resort" or limited to children with severe behavior problems (Vaughn, Bos, & Schumm, 1997). When used, tangible reinforcers should be

paired with social reinforcement. Eventually after the desired behavior is achieved the tangible reinforcer will then be gradually faded out and the social reinforcer will be the only reinforcer employed.

Punishment

Punishment is another tool used in applied behavior analysis. The technical definition of punishment differs substantially from the everyday use of the term (Schloss & Smith, 1998; Kazdin, 1994). Punishment is typically defined as providing an unpleasant consequence following misbehavior (Schloss & Smith, 1998). However, the technical definition includes an additional requirement, that the frequency of the responses must be decreased. (Kazdin, 1994). "Punishment in the technical sense is defined solely by the effect on behavior" (Kazdin, 1994, p. 38). It is extremely important that individuals using this technique understand the difference between the technical and popular definitions (Kazdin, 1994; Schloss & Smith, 1998). Just as there are two kinds of reinforcement, positive and negative, there are also two different kinds of punishment positive and negative (Craighead et al., 1976). A particular behavior is said to be positively punished when the behavior is followed by the presentation of a punisher (e.g., paddling) that decreases the frequency of that particular behavior. In contrast, negative punishers attempt to increase the desired behavior by removing something pleasant (e.g. time-out) (Cantania, 1992, Craighead et al., 1976; Peters et al., 1965; Schloss & Smith, 1998). It is important to note the difference between positive and negative punishment, as they are frequently confused (Craighead et al., 1976). When used appropriately punishment can be highly effective. However, there are several side affects from punishment that have caused its use in applied settings to be questioned. Some possible side effects include increased emotional responding, avoidance of the punishing agent,

and imitation of the use of punishment (Craighead et al 1976) Furthermore the ethical use of punishment has been discussed extensively (Schloss & Smith, 1998)

Extinction

Extinction is a tool that works in conjunction with reinforcement to achieve the desired objectives of applied behavior analysis By discontinuing reinforcers the effect of the reinforcers on the target behavior is reduced and eventually extinguished over time (Kazdin 1994 Martin & Pear 1988 Schloss & Smith 1998) School personnel frequently use extinction to reduce inappropriate and off task behaviors particularly where the reinforcers for such maladaptive behavior can be isolated and controlled (Polsgrove & Rieth 1983) For example some children engage in maladaptive behavior to attract attention to themselves If the reinforcer of that behavior attention, is discontinued the predicted result would be less of the maladaptive behavior The discontinuance of the reinforcer can be accomplished by the teacher ignoring the children s behavior Extinction can thus be an important tool for the interventionist in fashioning strategies for applied behavior analysis

Conclusion

In recent years, behavioral techniques and practices have been largely criticized by many ECE professionals and have frequently been labeled as developmentally inappropriate (see Duncan et al., 2000) However many of these professionals have failed to recognize that some of the most effective and widely used techniques and practices in ECE settings are grounded in behavioral theory (Straus et al 1992, Wolery 1994 see also Gordan & Browne, 1989, Kazdin 1977 1985 Martin & Pear 1988 Mounts & Roopnarine, 1987 Schloss & Smith, 1998) Furthermore, as reflected in the DAP guidelines (Bredekamp, 1987 Bredekamp & Copple 1997) the appropriateness of

certain techniques and practices is measured on a continuum. Therefore categorical exclusion of one type of technique or practice is inconsistent with developmentally appropriate practice

The purpose of this study is to evaluate preservice teachers' beliefs about developmentally appropriate practice, specifically behavioral techniques and practices in ECE ECSE, and Unified teacher preparation programs, and to compare the beliefs between these three groups for the purpose of identifying significant similarities and differences. Specifically, this research study will address the following questions

1. What beliefs do preservice teachers in ECE ECSE and Unified teacher preparation programs hold about developmentally appropriate practices?
2. Are there significant differences in beliefs about developmentally appropriate practices between preservice teachers in ECE ECSE, and Unified teacher preparation programs?
3. Are there statistically significant and noteworthy relationships between beliefs about developmentally appropriate practices and individual characteristics (e.g. chronological ages, years of experience) of early childhood preservice teachers?
4. What beliefs do preservice teachers in ECE, ECSE, and Unified teacher preparation programs hold about the use of behavioral techniques and practices?

- Are there significant differences in beliefs about behavioral techniques and practices between preservice teachers in ECE, ECSE, and Unified teacher preparation programs?
- Are there statistically significant and noteworthy relationships between beliefs about behavioral techniques and practices and individual characteristics (e.g., chronological ages, years of experience) of early childhood preservice teachers?

The study of beliefs between preservice teachers attending ECE, ECSE, and Unified teacher preparation programs on such topics as developmentally appropriate practices and behavioral techniques and practices should help researchers to explore possible areas for preservice teacher preparation program improvement and to understand and identify differences in professional practices. While much remains to be studied about teachers' beliefs and practices, this study will augment the knowledge base and assist others in developing approaches to teacher preparation that are based on actual data and sound theory.

CHAPTER 3
METHODS AND PROCEDURES

Participants, Sampling Procedures, & Setting

Participants in the study were 355 preservice teachers attending 14 different colleges and universities throughout the United States (Midwest = 2 Northeast = 1 South = 9 Southwest = 1 West = 1) The sample consisted of 242 preservice teachers attending early childhood education (ECE) teacher preparation programs 35 preservice teachers attending early childhood special education (ECSE) teacher preparation programs, and 78 preservice teachers attending unified early childhood (Unified) teacher preparation programs For the purpose of this study students receiving dual certification in ECE and ECSE were placed in the Unified group for program of study Table 1 summarizes the participants program of study by university

Description of Programs

The classification of the various programs of study at these universities into three general categories was based on each participant s description of their individual program However the principal investigator conducted a rudimentary analysis of the curriculum content of each of these programs for purposes of comparison Specifically upper-division courses were classified into curriculum content areas using a modified version of a questionnaire developed by Kemple (1994) (Appendix A) Unfortunately course descriptions were not available from all of the participating universities Therefore the principal investigator classified all courses solely on their title The information presented in Table 2 is solely for informational purposes and no conclusions

were drawn by the principal investigator regarding the content and makeup of the programs. Further analysis of the data is beyond the scope of this study

Individual Participant Characteristics

Participants ranged in age from 18 to 44 years (M = 22 SD = 3 79), and 98% were female. Of the total participants 89% described themselves as White 5% as Hispanic 4% as Black and 2% as Other Most (55%) of the participants were seniors, 43% juniors, 1% sophomores and 1% freshmen. Ninety three percent of the participants had at least one prior field placement at the time of the study A summary of the participants demographics and placement history, as well as current year of study in their program is included in Table 3 Chi Square analyses were not conducted because there were too few cases per cell Too few cases per cell adversely affects the stability of the statistic (Agresti 1990)

Table 1

Participants Program of Study by University

University	Number of Participants		
	Early Childhood Education	Early Childhood Special Education	Unified Early Childhood Education
Auburn University	39	0	0
East Tennessee State University	0	14	0
Florida Gulf Coast University	18	0	0
Florida State University	58	0	0
Louisiana State University	31	0	0
San Francisco State University	0	2	0
University of Delaware	19	3	6
University of Florida	0	0	64
University of Illinois	19	0	0
University of North Carolina at Chapel Hill	0	0	5
University of South Florida	49	0	0
University of Tennessee	9	2	3
University of Wisconsin	0	0	5
Utah State	0	0	9

Table 2

Number of Required Courses for Each Degree Program

University	Program Type	Child Growth Development, & Learning	Family & Community Relations	Curriculum	Health Safety & Nutrition	Early Childhood Professionalism	Young Children with Special Needs	Field Experiences (Including Internship)	[illegible]
Auburn * University	EC (Pre-K Grade 3)	8	1	9	0	3	0	3	0
East Tennessee State University	ECSE (K Grade 12)	1	1	4	0	0	2	2	8
Florida Gulf Coast University	EC (Pre-K - Grade 3)	[illegible]	1	1	1	1	1	[illegible]	[illegible]
Florida State University	EC (Pre-K Grade 3)	[illegible]	1	1	[illegible]	1	1	1	1
Louisiana State University	EC (Pre-K Grade 3)	2	1	5	0	[illegible]	0	2	2
San *** Francisco State University	ECSE (Ages 3-5)	0	1	2	0	[illegible]	1	[illegible]	[illegible]

* Denotes program on quarter rather than semester system

** Fifth year teacher certification program with internship being done during [illegible]

*** Certificate or add on endorsement program

Table 2--continued

University of Delaware	EC (Birth 4)								
University of Delaware	ECSE (Birth Grade 4)								
University of Delaware	Unified (Birth – Grade 4)	3		7	0				
University of Florida	Unified (Pre-K 3)	4	1	7	0				
University of Illinois	EC (Pre-K 3)	3	1	9	0				
University of North Carolina at Chapel Hill	Unified (Birth K)	1	7	2		4	0		
University of South Florida	EC (Pre K Grade 3)	1	1	5	0	3	0		
University of Tennessee	EC (K – Grade 8)	1	0	0	1	0	0		
University of Tennessee	ECSE (Birth Age 8)	0	0	4		0	4	0***	9

* Denotes program on quarter rather than semester system

** Fifth year teacher certification program with internship being done during the graduate year

*** Certificate or add an endorsement program

Table 2--continued

University of Tennessee	Unified (Birth Grade 3)								
University of Wisconsin	ECSE (Birth Age 8)								
Utah State	ECSE (Birth Age5)	0							

* Denotes program on quarter rather than semester system

** Fifth year teacher certification program with internship being done during the graduate year

*** Certificate or add on endorsement program

Table 3

Participants' Demographics, Placement History, and Current Year of Study by Program Type

	Early Childhood Education	Early Childhood Special Education	Unified Early Childhood	Total
	n (%)	*n* (%)	*n* (%)	*n* (%)
Gender				
Male	4 (1.7%)	1 (2.9%)	3 (3.8%)	8 (2.3%)
Female	238 (98.3%)	33 (94.3%)	75 (96.2%)	346 (97.5%)
Not Reported	0 (0%)	1 (2.%)	0 (0%)	1 (.3%)
Reported Ethnicity				
White	222 (91.7%)	32 (91.4%)	61 (78.2%)	315 (88.7%)
Hispanic	9 (3.7%)	1 (2.9%)	8 (10.3%)	18 (5.1%)
Black	7 (2.9%)	1 (2.9%)	5 (6.4%)	13 (3.7%)
Other	4 (1.7%)	1 (2.9%)	2 (2.6%)	7 (2.0%)
Not Reported	0 (0%)	0 (0%)	2 (2.6%)	2 (.6%)
Year in Program				
Senior	142 (58.7%)	24 (68.6%)	30 (38.5)	196 (55.2%)
Junior	95 (39.3%)	8 (22.9%)	48 (61.5%)	151 (42.5%)
Sophomore	4 (1.7%)	1 (2.9%)	0 (0%)	5 (1.4%)
Freshmen	1 (.4%)	2 (5.7%)	0 (0%)	3 (.8%)
Age				
Average	22	25	21	22
Range	18-43	20-44	19-26	18 44
Ideal Teaching Setting				
Noninclusive	127 (52.5%)	0 (0%)	14 (17.9%)	141 (39.7%)
Special Education	4 (1.7%)	23 (65.7%)	8 (10.3%)	35 (9.9%)
Inclusive	107 (44.2%)	12 (34.3%)	52 (66.7%)	171 (48.2%)
Not Reported	4 (1.7%)	0 (0%)	4 (5.1%)	8 (2.3%)

Instrumentation

Teacher Beliefs Scale (TBS)

The Teacher Beliefs Scale (TBS) was originally developed by Charlesworth et al (1991) to reflect the National Association for the Education of Young Children (NAEYC) guidelines first published in Young Children (1986). Because the original study was a pilot study, the scale was further developed and revised by Charlesworth, Hart, Burts, Thomasson et al. (1993). During this revision, a few items were eliminated because they did not load on any component in the first principal components analysis, and the TBS was updated to reflect changes to the (NAEYC) guidelines published in 1987 (Bredekamp, 1987, Charlesworth, Hart, Burts, Thomasson et al., 1993).

The first item on the scale asks respondents to rate in order of importance the amount of influence various school professionals, state regulations, and parents have on the way a teacher plans and implements instruction. The remainder of the questionnaire consists of 36 items related to developmentally appropriate and developmentally inappropriate belief statements. Participants use a Likert scale ranging from 1 (Not Important At All) to 5 (Extremely Important) (Charlesworth, Hart, Burts, Thomasson et al., 1993). Twenty-two of the items on the TBS represent developmentally appropriate beliefs and 14 of the items represent developmentally inappropriate beliefs. Developmentally inappropriate items are reverse scored during data analysis. All of the TBS items represent areas of kindergarten instruction specified in the NAEYC DAP Guidelines (Bredekamp, 1987, Charlesworth, Hart, Burts, Thomasson et al., 1993).

To examine the content validity of the TBS, as reported by the developers of the questionnaire (Charlesworth, Hart, Burts, Thomasson et al., 1993), the questionnaire responses were supported by the results of classroom observations using the Instructional

Activities Scale (IAS). Twenty participants were selected for classroom observation. Using the IAS, participants were observed for a minimum of 3 hours on 2 different days. The results of this observation were compared with the participants' responses on the TBS (Charlesworth, Hart, Burts, Thomasson et al., 1993).

To examine construct validity, the developers of the TBS conducted a principal components analysis after the questionnaire had been administered to 204 early childhood teachers. The principal components analysis revealed six components (developmentally inappropriate activities and materials, appropriate social, appropriate individualization, appropriate literacy, appropriate integrated curriculum beliefs, and inappropriate structure) with eigenvalues greater than one. These six components accounted for approximately 53.3% of the item variance (Charlesworth, Hart, Burts, Thomasson et al., 1993).

Internal consistency was determined using Cronbach's coefficient alpha. The following levels of internal consistency were obtained for items comprising the six components: .84, .77, .70, .60, .66, and .58, respectively (Charlesworth, Hart, Burts, Thomasson et al., 1993). Internal consistency for the total scale was not reported by Charlesworth, Hart, Burts, Thomasson et al. (1993).

Behavioral Beliefs Scale (BBS)

The Behavioral Beliefs Scale (BBS) (Appendix B) was developed by the principal investigator for the purpose of this study. The scale consists of 36 items that are presented in three sections. Section I consists of 8 items related to demographic and educational background information. Section II includes 22 items related to belief statements about behavioral techniques and practices using a 5 point Likert scale with points defined (1) Not Appropriate At All, (2) Not Very Appropriate, (3) Fairly

Appropriate, (4) Very Appropriate and (5) Extremely Appropriate. On each item respondents indicate the level of appropriateness for each teacher belief statement. Section III contains 6 scenarios describing specific behavioral techniques or practices using a 4-point Likert scale with points defined: (1) The technique or practice is very inappropriate, (2) The technique or practice is somewhat inappropriate, (3) The technique or practice is somewhat appropriate, and (4) The technique or practice is very appropriate. For each item respondents indicate the appropriateness of each technique or practice described. In addition, respondents are asked the following questions about each technique or practice presented: (1) Would you use this technique or practice? and (2) Why or why not?

Prior to the study, the BBS was piloted on a sample of 100 preservice teachers. Participants were 11 undergraduate preservice teachers in ECE teacher preparation programs, 19 undergraduate preservice teachers in ECSE teacher preparation programs and 70 undergraduate and graduate preservice teachers in Unified teacher preparation programs. During this field test, respondents were asked to identify items that are confusing or posed other problems (see Litwin, 1995). This feedback was to be used for further revision of the questionnaire. However, participants in the study did not provide any suggestions for improvement of the questionnaire.

To examine the content validity of the BBS, it was critically reviewed for content and wording by the principal investigator, a university professor specializing in early childhood education, two university professors specializing in early childhood special education, and a university professor in school psychology specializing in early

childhood Numerous revisions were made where necessary to enhance clarity and consistency

To further assist in Instrument development, an exploratory common factor (principal axis) analysis was conducted on Section II by the principal investigator using data obtained from a sample of 100 preservice teachers This sample size was considered adequate given the existence of two distinct factors a relatively small number of variables, and an adequate factor/variable ratio (Tabachnick & Fidell, 1989) The initial solution extracted 9 factors based on Kaiser s eigenvalue greater than one rule (Kaiser 1960) However an inspection of the scree plot of eigenvalues suggested retaining two factors (Stevens 1996) The scree test is generally regarded as superior to the eigenvalue greater than one rule in deciding on the number of factors to extract particularly where the sample size is relatively small (Gorsuch, 1983 Stevens, 1996) Cattell (1966) recommended one should retain those factors that correspond to the eigenvalues left of the elbow of the scree plot Because the elbow appears to fall between the 2nd and 3rd eigenvalue, only two factors were retained The table of eigenvalues and scree plot from the initial solution are shown in Tables 4 and 5 respectively

The factor matrix was rotated obliquely using a Promax rotation because it was expected that both factors were interrelated Tables 6, 7, and 8 show the obliquely rotated solution for Factor I, Factor II and items that did not load on either factor on the BBS, respectively

Table 4

Eigenvalues and Associated Variance for the Initial Principal Axis Factor Solution for the Behavioral Beliefs Scale

Factor	Eigenvalue	Proportion of Variance	Cumulative Proportion of Variance
1	5 036	17 985	17 985
2	2 942	10 507	28 492
3	1 984	7 084	35 576
4	1 737	6 20	41 778
5	1 633	5 833	47 611
6	1 476	5 270	52 881
7	1 288	4 600	57 481
8	1 126	4 020	61 502
9	1 026	3 666	65 167

Table 5

Scree Plot for Behavioral Beliefs Scale

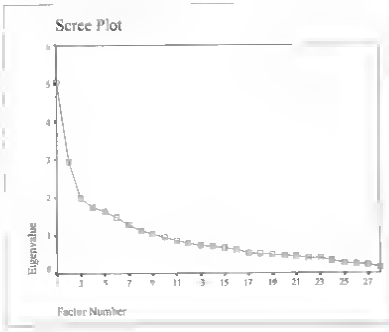

Table 6

Structure Matrix for Factor I of the Behavioral Beliefs Scale

	Item	Factor I	Factor II
1	It is ____ for teachers to motivate children's learning and behavior through the careful use of rewards and punishment in the classroom	**.446**	125
2	It is ____ for teachers to use rewards to change behavior	**.612**	068
4	It is ____ for teachers to set class goals for achievement and throw a pizza party when a predetermined goal is met	**492**	143
8	It is ____ for teachers to give students prizes (e.g., stickers, toys, trinkets) who complete their work on time	**.593**	244
10	It is ____ for teachers to grant special privileges (e.g., line leader) to children who are displaying appropriate behaviors	**.528**	116
11	It is ____ for teachers to use rewards (e.g., stickers) to enhance children's internal motivation	**600**	126
12	It is ____ for teachers to praise students for appropriate behavior	**448**	- 060
13	It is ____ for teachers to promote children's social-emotional development by using rewards (e.g., stickers)	**.588**	243
18	It is ____ for teachers to reward the entire class' appropriate behavior by granting extra playtime	**520**	026
20	It is ____ for teachers to promote children's social-emotional development by using praise.	**446**	-046

Table 6--continued

25 It is ____ for teachers to reward appropriate behavior with prizes	**.788**	303

Extraction Method Principal Axis Factoring
Rotation Method Promax with Kaiser Normalization
Note Salient loadings are in boldface

Table 7

Structure Matrix for Factor II of the Behavioral Beliefs Scale

Item	Factor I	Factor II
26 It is ____ for teachers to point out and use unpleasant consequences for aggressive behaviors (e g , hitting) in front of the class	018	**.570**
27 It is ____ for teachers to use unpleasant consequences to deter future misconduct.	018	**533**
28 It is ____ for teachers to point out inappropriate behavior (e g , breaking classroom rules) in front of the class.	219	**512**
29 It is ____ for teachers to take away privileges for breaking the classroom rules.	269	**.378**
30 It is ____ for teachers to use unpleasant consequences to set an example for other students	073	**647**
31 It is ____ for teachers to paddle students who hit other students.	068	**-490**
32 It is ____ for teachers to use unpleasant consequences (e g., name on board) with children who don t follow classroom rules	280	**-498**
33 It is ____ for teachers to paddle students who break classroom rules	021	**-486**

Extraction Method Principal Axis Factoring.
Rotation Method Promax with Kaiser Normalization
Note Salient loadings are in boldface

Table 8

Structure Matrix for Items Failing to Load on Factors I or II of the Behavioral Beliefs Scale

Item	Factor I	Factor II
3 It is ____ for teachers to give students candy for participating in activities.	.391	.388
6 It is ____ for teachers to sometimes ignore the behavior of students who are breaking the rules	.202	.142
7 It is ____ for teachers to sometimes ignore the behavior of students who are displaying aggressive behaviors (e.g. hitting)	.167	.150
17 It is____ for teachers to use physical contact (e.g. pats, high fives) to let students know they approve of their behavior	.161	.082
19 It is ____ for teachers to use "time-out" for aggressive behaviors (e.g., hitting, biting)	.302	.016
21 It is ____for teachers to take away privileges for temper outbursts.	.308	.232
22 It is ____ for teachers to use smiles to let students know they approve of their behavior	.264	.140
27 It is ____ for teachers to ignore "acting out" behaviors	.179	.041
28 It is ____ for teachers to use "time-out for breaking classroom rules	.119	.150

Extraction Method: Principal Axis Factoring
Rotation Method: Promax with Kaiser Normalization
Note. Salient loadings are in boldface

To identify the salient loadings following oblique rotation, items with factor loadings greater than or equal to | .40 | were considered to be salient (Stevens, 1999). The initial 2 factor solution after oblique rotation (conducted to maximize item loadings on one of the 2 factors) had 9 items (6, 7, 15, 17, 19, 21, 22, 27, 28) that failed to load on either factor. One item (3) clearly loaded on both factors, a solution which did not make sense conceptually. Although 3 items (6, 7, 27) did not load on either factor, the principal investigator with a faculty supervisor made the decision to retain these items on the scale because they assessed participants' beliefs about extinction (theoretically a third possible factor). Furthermore, it was decided to retain item 15 because of its relatively high loading (.378). From an analysis of the structure matrix, 7 items (3, 17, 19, 21, 22, 28) were removed from the scale. Inspection of the factor correlation matrix indicated that the 2 factors were mildly correlated (r = .244).

After these items were removed, another common factor (principal axis) analysis was conducted, and again, the factor matrix was rotated obliquely. The second 2 factor solution had 3 items (6, 7, 27) that did not saliently load on either factor. These items (6, 7, 27) were the same three extinction items that did not load on the initial analysis. The principal investigator along with a faculty supervisor made the decision to keep these items. Examination of the factor solutions indicated that the factors appear to represent beliefs about reinforcement and punishment, respectively.

Factor I consisted of 11 items related to beliefs about the use of reinforcement. Therefore, this factor was labeled reinforcement. Factor II consisted of 7 items related to beliefs on the use of punishment. Therefore, this factor was labeled punishment. These 2 factors accounted for approximately 22 and 13% of the variance, respectively, with a

total of 35% of the variance explained by the 2 Tables 9 and 10 shows the loadings of the items that make up Factor I and II, respectively Table 11 shows the loadings of items that did not factor into either Factor I or II

The internal consistency of the BBS, including Factors I and II, was established through Cronbach's coefficient alpha Reliability levels of 70 or higher are generally accepted as representing good reliability (Litwin 1995) Cronbach's alpha of the total score on Section II (based on all 22 items) was 81 Alphas for the 2 factors within Section II were 83 for Factor I (reinforcement) and 72 for Factor II (punishment) Examination of the individual item total correlations indicated that all items were keyed in the positive direction (e g., no need to reverse score any items) These correlations ranged from 14 to 69 indicating much variability in the contributions of each items to the overall reliability of the measure Alpha for Section III was 49 which suggests unacceptably low reliability Therefore, it was later dropped from the questionnaire

During the field pretest, 60 preservice teachers were given the BBS ten days apart. Test-retest reliability for the total score was calculated on Sections II and III by correlating scores of 60 questionnaires across 2 administrations. The correlation on Section II (based on all 22 items) was 74 Specifically the correlations were 73 on Factor I (reinforcement) and 69 on Factor II (punishment) The correlation on Section III was 71

Table 9

Structure Matrix for Factor I (Reinforcement)

	Item	Factor I	Factor II
1	It is ____ for teachers to motivate children s learning and behavior through the careful use of rewards and punishment in the classroom	**.561**	083
2	It is ____ for teachers to use rewards to change behavior	**.621**	044
4	It is ____ for teachers to set class goals for achievement and throw a pizza party when a predetermined goal is met	**.496**	210
8	It is ____ for teachers to give students prizes (e g_ stickers, toys (trinkets) who complete their work on time	**.642**	212
10	It is ____ for teachers to grant special privileges (e g., line leader) to children who are displaying appropriate behaviors	**.543**	124
11	It is ____ for teachers to use rewards (e g_ stickers) to enhance children s internal motivation	**637**	077
12.	It is ____ for teachers to praise students for appropriate behavior	**400**	102
13	It is ____ for teachers to promote children s social-emotional development by using rewards (e g_ stickers)	**.614**	165
18	It is ____ for teachers to reward the entire class appropriate behavior by granting extra playtime	**.528**	116

Table 9--continued

20 It is ____ for teachers to promote children's social-emotional development by using praise.	**.405**	093
25 It is ____ for teachers to reward appropriate behavior with prizes	**.753**	.392

Extraction Method: Principal Axis Factoring
Rotation Method: Promax with Kaiser Normalization
Note: Salient loadings are in boldface

Table 10

Structure Matrix for Factor II (Punishment)

	Item	Factor I	Factor II
5	It is ___ for teachers to point out and use unpleasant consequences for aggressive behaviors (e.g., hitting) in front of the class	085	**530**
9	It is ___ for teachers to use unpleasant consequences to deter future misconduct	079	**.513**
14	It is ____ for teachers to point out inappropriate behavior (e g., breaking classroom rules) in front of the class	317	**.543**
16.	It is ____ for teachers to take away privileges for breaking the classroom rules	246	**.378**
17	It is ____ for teachers to use unpleasant consequences to set an example for other students.	195	**590**
23	It is ____ for teachers to paddle students who hit other students	- 055	**587**
24	It is ___ for teachers to use unpleasant consequences (e g., name on board) with children who don't follow classroom rules.	0 27	**.493**
26	It is ____ for teachers to paddle students who break classroom rules	- 065	**559**

Extraction Method Principal Axis Factoring
Rotation Method Promax with Kaiser Normalization
Note. Salient loadings are in boldface

Table 11

Second Structure Matrix for Items Failing to Load on Factors I or II of the Behavioral Beliefs Scale

Item	Factor I	Factor II
6 It is ____ for teachers to sometimes ignore the behavior of students who are breaking the rules.	172	240
7 It is ____ for teachers to sometimes ignore the behavior of students who are displaying aggressive behaviors (e.g. hitting).	200	046
27 It is ____ for teachers to ignore "acting out" behaviors	216	181

Extraction Method: Principal Axis Factoring
Rotation Method: Promax with Kaiser Normalization.
Note. Salient loadings are in boldface

Procedures

The principal investigator identified ECE, ECSE, and Unified teacher preparation programs from which to obtain possible participants. Next, 71 faculty members of these programs were contacted and asked if they would be willing to contact possible participants, and, then, obtain participant consent and administer the TBS and BBS. Upon obtaining permission from faculty members at 14 different colleges and universities, the principal investigator sent each faculty member a packet of envelopes containing the informed consent form, TBS, and BBS. After participants completed the BBS and the TBS, the questionnaires were returned to faculty members in sealed envelopes and then forwarded to the principal investigator for analysis. Of the 576 questionnaires distributed, 355 (62%) were returned.

CHAPTER 4
RESULTS

Teacher Beliefs Scale

Although the developers of the Teacher Beliefs Scale (TBS) and several subsequent researchers (e.g., Sexton 1999) have calculated reliability estimates for the TBS, the principal investigator estimated the reliability of the TBS based on the responses of the participants in this study. First, the internal consistency of the TBS was established through Cronbach's alpha, a measure of how the individual items complement each other on their measurement of a particular variable. Cronbach's alpha for the TBS (based on items 2-37) was .85. Examination of the individual item total correlations indicated that all items were keyed in a positive direction and ranged from .09 to .56, indicating much variability in the contributions of each item to the overall reliability of the measure. Overall alpha for the TBS was sufficiently high to suggest that TBS scores could be used with confidence.

Beliefs about Developmentally Appropriate Practices

In order to address what beliefs preservice teachers in ECE, ECSE, and Unified teacher preparation programs hold about developmentally appropriate practices, means were computed for items 2-37 of the TBS (item 1 was not included because it did not assess participants' beliefs about developmentally appropriate practice). Table 11 shows each group's means for each individual item. A comparison of the mean scores of all three groups for individual items in Table 12 reveals that 20 of the 36 items (e.g., 3, 5, 6, 7, 8, 9, 10, 12, 13, 18, 21, 25, 26, 27, 28, 29, 31, 34, 35, 37), including the reverse scored

items, had mean scores of 4 0 or higher, indicating that beliefs were strongly held Furthermore, inspection of individual item means by group indicates that mean scores for both the ECE and ECSE groups on 2 additional items (e g 14, 30) were 4 0 or higher and mean scores for the ECE group on 3 more additional items (e g 2, 4 11) were 4 0 or higher Generally, the higher mean scores indicated stronger beliefs about developmentally appropriate practices

Differences in Beliefs About Developmentally Appropriate Practices

In order to address whether there were significant differences in beliefs about developmentally appropriate practices between preservice teachers in ECE, ECSE , and Unified teacher preparation programs, an one way between-subjects Analysis of Variance (ANOVA) was conducted to compare the mean scores on the TBS between the three groups to determine if there were significant inter-group differences not attributable to random error A significant difference was found at the $\alpha = .05$ level Mean scores on the TBS for all three groups are presented in Table 13 Results of the ANOVA for the mean scores on the TBS for all three groups are presented in Table 14

Because an ANOVA involving more than 2 groups does not identify which inter-group differences may be significant, post hoc comparisons must be done Holding the familywise Type I error rate constant at $\alpha = .05$ a post hoc comparison of pairwise group differences utilizing the Tukey procedure revealed significant differences between the ECE and ECSE groups and between the ECE and Unified groups, in their beliefs about developmentally appropriate practices However, no significant differences were observed between the ECSE and the Unified groups in their beliefs about developmentally appropriate practices at the $\alpha = .05$ level The results of the pairwise comparisons are summarized in Table 16

Relationships Between Developmentally Appropriate Practices and Individual Characteristics

In order to address whether there were statistically significant and noteworthy relationships between beliefs about developmentally appropriate practices and individual characteristics of early childhood teachers, mean TBS total scores were compared for males and females using a t test. The results did not suggest any significant relationship between gender and total scores ($t(350) = -1.384$, $p > .05$). A Pearson product moment correlation was computed for age and TBS total score and indicated no significant relationship ($N = 348$, $r = .095$). Finally, an ANOVA was performed to compare the mean scores on the TBS by ethnicity. There were no significant inter-group differences. Results of the ANOVA are presented in Table 15.

Table 12

Group Means for Individual Teacher Beliefs Scale Items

	Item	Early Childhood Education	Early Childhood Special Education	Unified Early Childhood
2	As an evaluation technique in the kindergarten program, standardized group tests are_____ *	4 43	3 71	3 99
3	As an evaluation technique in the kindergarten program, teacher observation is _____	4 72	4 63	4 70
4	As an evaluation technique in the kindergarten program performance on worksheets and workbooks is _____ *	4 05	3 63	3 74
5	It is _____ for kindergarten activities to be responsive to individual differences in development.	4 60	4 54	4.51
6	It is _____ for kindergarten activities to be responsive to individual differences in development	4.56	4 43	4 49
7	It is _____ that each curriculum area be taught as separate subjects at separate times *	4 39	4 11	4 14
8	It is _____ for teacher-pupil interactions in kindergarten to help develop children s self esteem and positive feelings toward learning.	4 80	4 86	4 88
9	It is _____ for children to be allowed to select many of their own activities from a variety of learning areas that the teacher has prepared (blocks science center, etc)	4.54	4 43	4 38

Table 12--continued

10 It is _____ for children to be allowed to cut their own shapes perform their own steps in an experiment, and plan their own creative drama, art, and writing activities	4.51	4 29	4 12
11 It is _____ for students to work silently and alone on seatwork.*	4 03	3 79	3 74
12 It is _____ for kindergarten to learn through active exploration	4 78	4 74	4 55
13 It is _____ for kindergarten to learn through interaction with other children.	4 85	4 83	4 74
14 Workbooks and/or ditto sheets are _____ to the kindergarten program *	4.26	3 97	4 00
15 Flashcards (numbers, letters and/or words) are _____ to the kindergarten program for instructional purposes *	3 34	3 17	3.29
16 The basal reader is _____ to the kindergarten reading program *	3 70	3 09	3 27
17 In terms of effectiveness it is _____ for the teacher to talk to the whole group and make sure everyone participants in the same activity *	3 47	3 09	2 99
18 In terms of effectiveness, it is _____ for the teacher to move among groups and individuals offering suggestions, asking questions, and facilitating children s involvement with materials and activities	4 71	4 69	4 61
19 It is _____ for teachers to use their authority through treats, stickers and/or stars to encourage appropriate behavior *	3 78	2 86	2 84

Table 12 -continued

20	It is _____ for teachers to use their authority through punishments and/or reprimands to encourage appropriate behavior *	3 87	3 80	3 57
21	It is _____ for children to be involved in establishing rules for the classroom	4 40	4 26	4.25
22.	It is _____for children to be instructed in recognizing the single letters of the alphabet, isolated from words *	2 75	2 60	2 41
23	It is _____ for children to color within predefined lines *	3 99	3 60	3 88
24	It is _____ for children in kindergarten to form letters correctly on a printed line	3 46	3 43	3 43
25	It is _____for children to have stories read to them individually and/or on a group basis	4 77	4 57	4 75
26	It is _____for children to dictate stories to the teacher	4 20	4 23	4 08
27	It is _____ for children to see and use functional print (telephone books, magazines etc) and environmental print (cereal boxes, potato chip bags, etc) in the kindergarten classroom	4 55	4 29	4 32
28	It is _____ for children to participate in dramatic play	4 75	4 51	4 58
29	It is _____for children to talk informally with adults	4 50	4.26	4 50

Table 12--continued

30 It is _____ for children to experiment with writing by inventing their own spelling	4 42	3 91	4 20
31 It is _____ to provide many opportunities to develop social skills with peers in the classroom	4 85	4 77	4 82
32 It is _____ for kindergartners to learn to read.*	2 62	2 89	2 91
33 In the kindergarten program it is _____ that math be integrated with all the curriculum areas	3 92	3 54	3 54
34 In teaching health and safety, it is _____ to include a variety of activities throughout the school year	4 43	4 46	4 42
35 In the classroom setting, it is _____ for the child to be exposed to multicultural and nonsexist activities.	4 75	4 57	4 74
36 It is _____ that outdoor time have planned activities.	3 27	2 94	2 8
37 Input from parents is _____	4 70	4 77	4 75

* Developmentally inappropriate item that was reverse-scored.

Table 13

Mean Total Scores for Teacher Beliefs Scale

	Early Childhood Education	Early Childhood Special Education	Unified Early Childhood
M	150 27	143 97	142 90

Table 14

Summary ANOVA Table for Teacher Beliefs Scale

Source	df	SS	MS	F	p
Group	2	3819 379	1909 690	10 466*	000
Error	350	63862 066	182 463		

* $p < .05$

Table 15

Pairwise Comparisons for Teacher Beliefs Scale

Program of Study	Program of Study	Mean Difference	Std Error	p
Unified	EC	7 3778*	1.7683	000
	ECSE	-1 0753	2 7537	919
EC	Unified	7 3778*	1 7683	000
	ECSE	6 3024*	2 4434	027
ECSE	Unified	1-0753	2 7537	919
	EC	6 3024*	2 4434	027

* p < 05

Table 16

Summary ANOVA Table for Teacher Beliefs Scale Total Scores and Ethnicity

Source	df	SS	MS	F	p
Group	3	816 880	272 293	1 418*	.237
Error	347	66618 860	191 985		

* p > 05

Behavioral Beliefs Scale

Although reliability estimates were initially calculated during the development of the Behavioral Beliefs Scale (BBS) based on the pilot study the principal investigator again estimated the reliability of the BBS based on the data collected for this study

Again, Cronbach s alpha was calculated to measure the internal consistency Cronbach s alpha for Section II (items 1 through 22) was .79 Alphas for the 2 identified factors within Section II were .77 for Factor I (reinforcement) and .72 for Factor II (punishment) Examination of the individual item-total correlations indicated that all items were keyed in the positive direction and ranged from .13 to .58 Indicating much variability in the contributions of each item to the overall reliability of the measure.

Beliefs about Behavioral Techniques and Practices

In order to address what beliefs preservice teachers in ECE ECSE, and Unified teacher preparation programs hold about the use of behavioral techniques and practices, mean scores were computed for each group for each of the items contained in Section II of the BBS Table 16 summarizes the mean scores for each group by item A comparison of the group means for individual items in Table 17 indicates that all three groups rated 2 items (e g. 11, 17) 4 0 or higher, suggesting that beliefs range from "Very Appropriate" to "Extremely Appropriate " Furthermore, inspection of individual item means by group indicates that both the ECSE and Unified groups rated 1 additional item (e.g. 16) at 4 0 or higher Inspection of the chart indicates that many additional items were rated at 3 0 (Fairly Appropriate) or higher

Differences in Beliefs about Behavioral Techniques and Practices

In order to address whether there were significant differences in beliefs about behavioral techniques and practices between preservice teachers in ECE ECSE and Unified teacher preparation programs, an one-way between groups ANOVA was conducted to compare the mean scores on the BBS between the three groups to determine if there were significant inter-group differences not attributable to random error A significant difference was found at the a = 05 level on Section II of the BBS and Factor

I of Section II of the BBS No significant differences between group means at the α = 05 level were found on Factor II (punishment) of Section II of the BBS, F(2, 352) = 1.054, p 350 Mean scores of the BBS on Section II, Factor I (reinforcement) of Section II, and Factor II (punishment) of Section II for each of the three groups are presented in tables, 18 19, 20 respectively Results of the ANOVAs calculated on the mean scores of the BBS on Section II Factor I (reinforcement) of Section II and Factor II (punishment) of Section II for each of the three groups are presented in Tables 21 22, and 23 respectively

Because an ANOVA involving more than 2 groups does not identify which inter group differences may be significant, post hoc comparisons must be done Holding the familywise Type I error rate constant at α= 05 a post hoc comparison of pairwise group differences utilizing the Tukey procedure revealed significant differences between the ECE and ECSE groups, and between the ECE and Unified groups, in their beliefs about behavioral techniques and practices However no significant differences were observed between the ECSE and the Unified groups in their beliefs about behavioral techniques and practices at the α = 05 level The results of the pairwise comparisons are summarized in Table 24

A post hoc comparison utilizing the Tukey procedure for pairwise comparisons on Factor I (reinforcement) of Section II of the BBS revealed significant differences between the ECE and Unified groups and the ECE and ECSE group in their beliefs about reinforcement. However, no other significant inter-group differences were observed for Factor I (reinforcement) at the α = 05 level The results of the pairwise comparisons are summarized in Table 25

No post hoc comparison was conducted on Factor II (punishment) of Section II of the BBS because, as indicated earlier, the ANOVA did not reveal any significant differences between the three groups.

Relationships Between Behavioral Techniques and Practices and Individual Characteristics

In order to address whether there were statistically significant and noteworthy relationships between beliefs about behavioral techniques and practices and individual characteristics of early childhood preservice teachers, mean BBS total scores were compared for males and females using a t-test. The results did not suggest any significant relationship between gender and total scores ($t(352) = .228$, $p > .05$). A Pearson product moment correlation was computed for age and BBS total scores and indicated no significant relationship ($N = 350$, $r = -.011$). Finally, an one-way between groups ANOVA was performed to compare the mean scores on the BBS by ethnicity. There were no significant inter-group differences. Results of the ANOVA are presented in Table 26.

Table 17

Group Means for Individual Behavioral Beliefs Scale Items

	Item	Early Childhood Education	Early Childhood Special Education	Unified Early Childhood
1	It is ____ for teachers to motivate children's learning and behavior through the careful use of rewards and punishment in the classroom	2 93	3 59	3 56
2	It is ____ for teachers to use rewards to change behavior	2 65	3 31	3 24
3	It is ____ for teachers to set class goals for achievement and throw a pizza party when a predetermined goal is met	3 20	3 40	3 54
4	It is ____ for teachers to point out and use unpleasant consequences for aggressive behaviors (e g hitting) in front of the class	1 74	1 74	1 92
5	It is ____ for teachers to sometimes ignore the behavior of students who are breaking the rules.	2 35	2.37	2 14
6	It is ____ for teachers to sometimes ignore the behavior of students who are displaying aggressive behaviors (e g hitting)	1 40	1 43	1 35
7	It is ____ for teachers to give students prizes (e g , stickers, toys, trinkets) who complete their work on time.	2 43	3 17	2 94
8.	It is ____ for teachers to use unpleasant consequences to deter future misconduct	2 63	2 88	2 88

Table 17--continued

9 It is ___ for teachers to grant special privileges (e.g. line leader) to children who are displaying appropriate behaviors	3.51	3.77	3.83
10 It is ___ for teachers to use rewards (e.g. stickers) to enhance children's internal motivation	2.88	3.51	3.49
11 It is ___ for teachers to praise students for appropriate behavior	4.73	4.74	4.65
12 It is ___ for teachers to promote children's social-emotional development by using rewards (e.g. stickers)	2.63	3.29	3.17
13 It is ___ for teachers to point out inappropriate behavior (e.g. breaking classroom rules) in front of the class	2.21	2.17	2.17
14 It is ___ for teachers to take away privileges for breaking the classroom rules	3.38	3.77	3.51
15 It is ___ for teachers to use unpleasant consequences to set an example for other students	2.20	2.38	2.29
16 It is ___ for teachers to reward the entire class appropriate behavior by granting extra playtime	3.60	4.03	4.04
17 It is ___ for teachers to promote children's social-emotional development by using praise	4.22	4.54	4.48
18 It is ___ for teachers to paddle students who hit other students	1.07	1.17	1.04
19 It is ___ for teachers to use unpleasant consequences (e.g. name on board) with children who don't follow classroom rules.	2.24	2.46	2.55

Table 17--continued

20 It is ____ for teachers to reward appropriate behavior with prizes	2 62	3 14	3 23
21 It is ____ for teachers to paddle students who break classroom rules	1 06	1 17	1 05
22 It is ____ for teachers to ignore "acting out" behaviors	2 21	2.50	2.09

Table 18

Mean Total Scores for Behavioral Beliefs Scale- Section II

	Early Childhood Education	Early Childhood Special Education	Unified Early Childhood
M	57 29	64 11	62 61

Table 19

Mean Total Scores for Factor I (Reinforcement) of the Behavioral Beliefs Scale

	Early Childhood Education	Early Childhood Special Education	Unified Early Childhood
M	34 88	40 29	40 01

Table 20

Mean Scores for Factor II (Punishment) of the Behavioral Beliefs Scale

	Early Childhood Education	Early Childhood Special Education	Unified Early Childhood
M	13 12	13 83	13 65

Table 21

Summary ANOVA Table for Behavioral Beliefs Scale – Section II

Source	df	SS	MS	F	p
Group	2	2640 709	1320.354	15 525*	000
Error	352	29937 331	85 049		

* $p < .05$

Table 22

Summary ANOVA Table for Behavioral Beliefs Scale – Factor I (Reinforcement) of Section II

Source	df	SS	MS	F	p
Group	2	2095 183	1047 591	25 318*	000
Error	352	14564 89	41 378		

* p < 05

Table 23

Summary ANOVA Table for Behavioral Beliefs Scale – Factor II (Punishment) of Section II

Source	df	SS	MS	F	p
Group	2	27 382	13 691	1 054**	350
Error	352	4572.150	12.989		

** p > 05

Table 24

Pairwise Comparisons for Section II of the Behavioral Beliefs Scale

Program of Study	Program of Study	Mean Difference	Std. Error	Sig.
Unified	ECE	5.3303*	1.2008	.000
	ECSE	1.4989	1.8763	.704
ECE	Unified	-5.3303*	1.2008	.000
	ECSE	-6.8292*	1.6678	.000
ECSE	Unified	-1.4989	1.8763	.704
	ECE	6.8292*	1.6678	.000

* $p < .05$

Table 25

Pairwise Comparisons for Factor I (Reinforcement) of Section II of the Behavioral Beliefs Scale

Program of Study	Program of Study	Mean Difference	Std. Error	Sig.
Unified	ECE	5.1285*	.8375	.000
	ECSE	-.2729	1.3087	.976
ECE	Unified	-5.1285*	.8375	.000
	ECSE	-5.4014*	1.1633	.000
ECSE	Unified	.2729	1.3087	.976
	ECE	5.4014*	1.1633	.000

* $p < .05$

Table 26

Summary ANOVA Table for Behavioral Beliefs Scale Total Scores and Ethnicity

Source	df	SS	MS	F	p
Group	3	296 045	98 682	1 072*	361
I rror	349	32126 190	92 052		

* p > 05

Summary

An analysis of the data gathered from each of three teacher preparation programs led to 6 general findings about preservice teachers beliefs about developmentally appropriate practices and behavioral techniques and practices. First, the study found that preservice teachers in each of the teacher preparation programs held relatively strong beliefs about developmentally appropriate practices. Second, significant differences in beliefs about developmentally appropriate practices were observed between preservice teachers in the ECE and ECSE programs and between the ECE and Unified programs However no significant differences were observed between the ECSE and the Unified groups in their beliefs about developmentally appropriate practices. Third, no statistically significant and noteworthy relationships between beliefs about developmentally appropriate practices and individual characteristics (i e., sex chronological age ethnicity) of early childhood preservice teachers were identified Fourth the study found that preservice teachers in each of the teacher preparation programs did not hold strong beliefs about behavioral techniques and practices Fifth,

significant differences in beliefs about behavioral techniques and practices were observed between preservice teachers in the ECE and ECSE groups and between the ECE and Unified groups. However, no significant differences were observed between the ECSE and the Unified groups in their beliefs about behavioral techniques and practices. Finally, no statistically significant and noteworthy relationships between beliefs about behavioral techniques and practices and individual characteristics (i.e., sex, chronological age, ethnicity) of early childhood preservice teachers were identified.

CHAPTER 5
DISCUSSION

Introduction

Educational philosophy and practice have historically differed between early childhood education (ECE) and early childhood special education (ECSE) (Bredekamp 1993, Burton et al., 1992, Wolery & Wilbers 1994), with ECE being traditionally grounded in constructivism and ECSE being traditionally grounded in behaviorism (Smith & Bredekamp 1998, see also Wolery et al 1994 Wolery & Wilbers 1994) The recent trend towards greater inclusion has increased the number of children with special needs in ECE classrooms, resulting in the need for professionals from a variety of fields to work together With this greater inclusion has come a blending of techniques and practices from different fields and at other times friction and heated debates (Smith & Bredekamp, 1998, see also Bredekamp 1993 Carta, 1991 Carta 1993 Carta et al., 1994 Carta et al 1995 Johnson & Johnson 1992 Johnson & Johnson, 1993 Johnson & Johnson 1994 Kilgo et al 1999) Since research indicates that teachers beliefs largely influence their behavior in the classroom (Bloom 1992 Charlesworth, Hart, Burts, & DeWolf 1993 Clark & Peterson, 1986 Dunn & Kontos, 1997 Hyson, Hirsch-Pasek, & Rescola, 1990 Fang 1996 Isenberg 1996 Munby 1982 Smith, 1992), exploring some of the similarities and differences in beliefs about developmentally appropriate practices and behavioral techniques and practices among preservice teachers in ECE, ECSE and Unified teacher preparation programs may assist in curriculum development and training

as well as continuing education for inservice teachers (see Tatto, 1998). Moreover, an understanding of such differences may help teacher preparation programs bridge the gap between these traditionally different disciplines. Thus, the first goal of this study was assess and evaluate ECE, ECSE, and Unified preservice teachers beliefs about developmentally appropriate practices and behavioral techniques and practices.

A second goal of this study was the piloting, development, and testing of an instrument used to assess beliefs about behavioral techniques and practices. To this end the Behavioral Beliefs Scale (BBS) was developed to assess beliefs about behavioral techniques and practices, and its reliability was tested. Moreover, a comparison of responses on the Teacher Beliefs Scale (TBS) between types of preservice teachers was intended to add to the developing body of research surrounding the TBS.

Beliefs About Developmentally Appropriate Practices

An analysis of the data gathered from three types of teacher preparation programs led to three general findings about preservice teachers and their beliefs about developmentally appropriate practices. The results of this study suggested that, in general, preservice teachers in each of the three groups hold strong beliefs about developmentally appropriate practices. The mean scores for a majority of the items, including the reverse-scored items, were in excess of 4.0 (the practice was very important) with only slight differences in responses by training program type. However, preservice teachers in ECE training programs held the strongest beliefs about developmentally appropriate practices, having mean scores in excess of 4.0 on 25 out of 36 items, suggesting that these preservice teachers have extremely strong beliefs about developmentally appropriate practices.

In addition to the strength of beliefs, significant differences in beliefs were observed between preservice teachers in ECE, ECSE, and Unified teacher preparation programs. In particular, preservice teachers in ECE teacher preparation programs held significantly different beliefs about developmentally appropriate practices from preservice teachers in ECSE and Unified teacher preparation programs. With nearly all of the participants being juniors and seniors (97.7%) in teacher preparation programs, some differences in beliefs may be attributable to differences in training, particularly since no demographic characteristics were determined to have significant relationships with beliefs.

Given that ECE teacher preparation programs have historically been rooted in constructivism, the fact that ECE preservice teachers held stronger beliefs about developmentally appropriate practices than ECSE preservice teachers who have not been typically rooted in constructivism was not surprising. Furthermore, as indicated earlier the Developmentally Appropriate Practice (DAP) Guidelines were developed and published by the National Association for the Education of Young Children (NAEYC) the largest organization of ECE professionals. It was somewhat surprising that preservice teachers in ECE teacher preparation programs differed significantly from preservice teachers in Unified teacher preparation programs because Unified teacher preparation programs draw upon philosophy and practice from the field of ECE (Burton et al. 1992 Gargiulo, Sluder, & Strentenberger 1997). It was anticipated that preservice teachers in Unified teacher preparation programs would hold beliefs very similar to those of ECE preservice teachers -- that is, strong beliefs about developmentally appropriate practices. The observed differences between the two groups suggests that Unified programs may be

more closely patterned after ECSE programs than ECE programs or, alternately that ECE programs may simply differ from the others only in the limited areas addressed by this study. Also the observed differences may have been attributable to the way in which the participating programs were classified or labeled. In addition, what may have been more surprising is how strong ECSE preservice teachers beliefs were about developmentally appropriate practices. Perhaps the most significant conclusion to be drawn from these unanticipated differences is that further research might be warranted.

The results of this study also suggested that no significant relationships existed between demographic characteristics - gender, age, ethnicity -- and beliefs about developmentally appropriate practices. Given this finding, it is possible that observed differences in beliefs were attributable to differences in program type, and thus, training. However, one might hypothesize that individuals in teacher preparation programs have pre-existing beliefs that make them more compatible with the teacher preparation program they select. However, this study tends not to support this hypothesis because most of the data comes from universities with only one type (i.e., ECE, ECSE, or Unified) of early childhood teacher preparation program, suggesting that students could not choose one program over another.

As indicated earlier, a secondary goal of this study was to further investigate the value of a questionnaire used to assess early childhood teachers' beliefs about developmentally appropriate practices. While a detailed analysis of the TBS was outside the scope of this study, the TBS was easy to use and was found to have satisfactory reliability, confirming other studies on the TBS (see Charlesworth, Hart, Burts

Thomasson et al 1993 Sexton, 1998) No significant problems or flaws with this instrument were noted.

Beliefs about Behavioral Techniques and Practices

Unlike the strength of participants beliefs about developmentally appropriate practices, the results from the administration of the BBS suggested that preservice teachers attending all three training programs did not hold extremely strong beliefs about behavioral techniques and practices Preservice teachers attending all three training programs only endorsed a small number of behavioral techniques and practices as very appropriate to extremely appropriate when compared to the number of endorsed belief statements about developmentally appropriate practices. Only mean scores for 2 out of 22 items were in excess of 4 0 (indicating that the technique or practice was very appropriate), with slight differences in responses by training program type Specifically preservice teachers in ECSE and Unified teacher preparation programs on average rated only 1 additional item as very appropriate. Given that ECSE teacher preparation programs have been historically "rooted" in behaviorism it was anticipated that more items would be endorsed as very appropriate or extremely appropriate by ECSE preservice teachers In summary, overall stronger response (e g., stronger beliefs about behavioral techniques and practices) was expected of ECSE preservice teachers than was actually observed

Results of this study further suggested that significant differences existed in preservice teachers' beliefs about behavioral techniques and practices in ECE ECSE and Unified Teacher preparation programs Specifically beliefs held by preservice teachers in ECE teacher preparation programs differed significantly from beliefs held by preservice teachers in ECSE and Unified training programs Preservice teachers in ECE

teacher preparation programs did not endorse as many beliefs about behavioral techniques and practices as preservice teachers in ECSE and Unified teacher preparation programs. This finding was anticipated given the historical foundations of the two disciplines (see Smith & Bredekamp, 1998; Wolery et al., 1994; Wolery & Wilbers, 1994). Unified teacher preparation programs draw upon philosophy and practice from the fields of ECE and ECSE (Burton et al., 1992; Gargiulo, Sluder, & Streitenberger, 1997). Therefore, it was not surprising that preservice teachers in Unified teacher preparation programs endorsed more behavioral techniques and practices than those preservice teachers attending ECE teacher preparation programs.

Results of the analysis on each of the two factors on the BBS (i.e., reinforcement and punishment) suggested that there were significant differences in beliefs about reinforcement between the three training programs. Beliefs of preservice teachers in ECE teacher preparation programs differed significantly from those preservice teachers in ECSE and Unified teacher preparation programs. However, there were no significant differences between the three groups in beliefs about punishment. Data analysis indicated that, generally, all three groups did not endorse the use of punishment or unpleasant consequences with young children. In recent years, many forms of punishment in the classroom (e.g., paddling, other techniques that might be construed as humiliating) have been discouraged because of liability issues and for ethical reasons (Deitz & Repp, 1983; Kazdin, 1978, 1994; Martin & Pear, 1988; Polsgrove & Reith, 1993; Schloss & Smith, 1998). Furthermore, the DAP Guidelines also discourage the use of punishment (Bredekamp & Copple, 1997). Perhaps due to these problems and

changes in society's expectations regarding the treatment of children, all three types of teacher education programs have begun to discourage the use of punishment

Finally, there were no significant relationships between sex and beliefs about behavioral techniques and practices, age and beliefs about behavioral techniques and practices, and ethnicity and beliefs about behavioral techniques and practices

Results of the pilot study on 100 preservice teachers indicated that the BBS has satisfactory reliability. Furthermore, the data gathered on 355 preservice teachers indicated that the BBS has satisfactory reliability and appears to be a promising instrument for use in behavioral beliefs assessment

Implications for Practice

The results of this study suggest that preservice teachers in ECSE and Unified teacher preparation programs hold similar beliefs about developmentally appropriate practices and behavioral techniques and practices. However, this study found that preservice teachers in ECE programs held significantly different beliefs about developmentally appropriate practices and behavioral techniques and practices when compared with preservice teachers in ECSE and Unified teacher training programs

Given findings of this study and the trend towards greater inclusion of young children with special needs in early childhood settings, it is even more important that professionals in the fields of ECE and ECSE work together to identify commonalities and resolve differences in order to successfully meet the needs of typically and atypically developing children. Teacher educators in ECE, ECSE, and Unified teacher preparation programs may need to reconsider ways programs can be restructured so that significant differences in training no longer exist between the three program types. Collaboration between these teacher educators needs to occur with greater frequency despite the

departmentalization of most colleges and schools of education many of which still maintain physically segregated facilities for different programs (Winn & Blanton, 1997)

The wide range of beliefs evident in this study suggests that the goals of unifying ECE and ECSE education have not been fully realized at the major institutions participating in this study, particularly at the philosophical level Perhaps the adage, "old habits die hard" reflects how slowly institutional change occurs compared to theoretical or legal changes The key to resolving the differences between ECE and ECSE in a meaningful way may be for teacher educators to recognize the merits of various philosophical orientations and expose students to them. Unified teacher preparation programs have attempted to do just this by blending the disciplines of ECE and ECSE in a formal way However the concept of combining two different disciplines is still relatively new and many Unified programs are still undergoing tremendous change Similarly, in the classroom new and emerging roles for ECSE teachers are being developed many find that they are working in ECE classrooms or consulting with ECE teachers more and more (See Baysee & Wesley, 1993)

Assuming that teachers' beliefs do sometimes influence teacher practice as some research suggests school district administrators must begin to consider how teachers beliefs can be modified so that teachers feel comfortable using a wide variety of practices with the children in their class, including developmentally appropriate practices and behavioral techniques and practices One way administrators may begin to assist teachers in modifying their current beliefs is inservice training programs Research concerning the alteration of beliefs has suggested that beliefs are more amenable to change when teachers are shown that particular practices are effective Therefore inservice training

aimed at demonstrating the effectiveness of developmentally appropriate practices and behavioral techniques and practices may be a useful tool in attempting to effectuate changes in teachers' beliefs (Dunn & Kontos, 1997). However, failure of the training to demonstrate the effectiveness of the practice may only reinforce existing beliefs.

There is much that remains unknown about teachers' beliefs and how these beliefs influence practice. What has become clear after considering the results of this study is that teacher educators must continue to work together across the fields of ECE and ECSE to improve the quality of teaching, classroom management, and education for all children, including those with special needs.

Limitations of the Study

One limitation of this study is that all beliefs about developmentally appropriate practices and behavioral techniques and practices were self-reported. Thus, there is no evidence to suggest that participants' actual teaching practices would reflect their reported beliefs. However, there is some research that suggests a moderate relationship between teachers' beliefs and practices (Dunn & Kontos, 1997; Charlesworth et al., 1993; Hyson et al., 1990).

A second limitation of this study is the relatively small sample (N = 35) size of ECSE preservice teachers. The majority of this study's sample consisted of preservice teachers in ECE and Unified teacher preparation programs. However, harmonic means were used when means between the three groups were compared.

A third limitation of this study is that that participants' teacher preparation programs were not critically examined and analyzed. Therefore, no clear conclusions can be drawn about the curriculum content of each of the three program types. In addition,

the classification of programs into the three types used in this study is not exact and program type may more appropriately be viewed on a continuum

A fourth limitation of this study is that the BBS is a relatively new instrument. Although information gathered on reliability and validity are encouraging, additional studies need to be conducted

Areas of Future Research

Areas of future research might include conducting additional studies investigating preservice teachers' or practicing teachers' beliefs using the BBS. These studies might also include the use of multiple measures (e.g., questionnaires, observations, interviews). The use of multiple measures would provide researchers with insight into the ways in which beliefs coincide with teacher practices. Furthermore, it would be interesting to see if the results of this study could be replicated on another sample of preservice teachers attending ECE, ECSE, and Unified teacher preparation programs.

Other areas of future research might also focus on how teachers' beliefs change over time. This might include a study of beliefs of persons entering teacher preparation programs, as well as a study of beliefs held by persons after teaching a few years. The participants in this study could be closely followed during their first few years of teaching. Furthermore, teachers' practices could be examined to see if they are closely aligned with their beliefs.

Future research studies might also consider evaluating practicing teachers' beliefs about developmentally appropriate practices (see Charlesworth, Hart, Burts, Thomasson et al., 1993; Sexton, 1998) and behavioral techniques and practices. The results of such a study could be compared to this study and other studies on the TBS to examine a variety of constructs. This might include examining the relationship between teachers' beliefs

about developmentally appropriate practices and behavioral techniques and practices and variables such as educational level, employment area, and years of teaching experience Also variables particular to practicing teachers such as demands of the school environment could also be factored into determining the extent that beliefs influence practice Moreover conclusions concerning training effects between types of programs could be further expanded

In addition to future research on preservice and inservice teachers beliefs about developmentally appropriate practices and behavioral techniques and practices, research evaluating the beliefs of teacher educators in ECE ECSE, and Unified teacher preparation programs is also warranted Such research may further develop whether observed differences in preservice teachers beliefs are attributable to differences in training Moreover, such research may further develop why differences in beliefs between preservice teachers in ECE ECSE and Unified programs were found to exist.

As discussed in Chapter 2 research suggests that teachers practices are not always reflective of their beliefs Research aimed at understanding the conditions and reasons for such divergence may be useful in understanding how to encourage the use of developmentally appropriate practices and behavioral techniques and practices, despite a wide variety of beliefs concerning those practices Furthermore, research into teacher motivation and temperament may also contribute to this field of study

APPENDIX A
EARLY CHILDHOOD PROGRAM DESCRIPTION — MODIFIED QUESTIONNAIRE

University or College _____

I. **Child Growth, Development, and Learning** (Principals of child growth and development, developmental diversity psychological foundations of early childhood (ECE))

Course Title

_____

_____

_____

_____

_____

_____

II. **Family and Community Relations** (Understanding of the role of the family and community ability to cooperate with the family and community systems)

Course Title

_____

_____

_____

_____

_____

_____

III **Curriculum Development, Content, and Implementation** (Planning and implementing, evaluating appropriate content and methods, selecting materials; creating the learning environment, planning for special needs, observing, recording and assessing behavior)

Course Title

_____

_____

_____

_____

_____

_____

IV. **Health, Safety, and Nutrition** (Basic health, nutrition, and safety management procedures; health appraisal and referral; identification and correction of hazards)

Course Title

_____

_____

_____

_____

_____

_____

V. **Early Childhood Professionalism** (Value issues and legal issues; advocacy; philosophy of ECE, historical, philosophical and social foundations of ECE working with colleagues career-long growth and development)

Course Title

_____

_____

_____

_____

_____

_____

VI **Young Children with Special Needs**

Course Title

_____

_____

_____

_____

_____

_____

VII Young Children with Special Needs

Course Title

_____

_____

_____

_____

_____

_____

VIII. Field Experiences

Supervised practicum as a classroom assistant prior to student teaching (student is directly supervised by a college/university supervisor and there is planned communication between college/university supervisor and staff at the practicum site

_____

_____

_____

Supervised student teaching (student is directly supervised by a college/university supervisor and there is planned communication between the college/university supervisor and the staff at the practicum site)

_____

_____

_____

VII. Other program requirements

_____

_____

_____

IX Does your institution operate on a quarter system or semester system (please circle one)

QUARTER SEMESTER

X. What is the title of the program which you have just described?

_____

XI. What is the name of the department in which the program is offered?

_____

XII Is this department part of the school or college within your institution (e g College of Education, College of Consumer and Family Science)? If so, please name

_____

XIII Is the early childhood teacher preparation program which you have just described (please check)

____ Regular Early Childhood

____ Early Childhood Special Education

____ Unified Early Childhood and Early Childhood Special Education

APPENDIX B
BEHAVIORAL BELIEFS SCALE (BBS)

Your professional cooperation in completing this questionnaire will help all educators gain a better understanding of preservice teachers' beliefs about behavioral techniques and practices used in many early childhood settings. This is not a test: there are no right or wrong answers. Your opinion will be strictly confidential. Please give an independent reaction on *each* item.

Name _____

Please respond to each item

1 Your program of study (check one)
____Unified (Combined) Early Childhood Education and Early Childhood Special Education
____Early Childhood Education
____Early Childhood Special Education
____Other (please describe)_____

2 Your present year of study in your current program (check one)
____Freshman
____Sophomore
____Junior
____Senior
____Graduate Student in Master's in a 5th Year Preservice Program
____Graduate Student in Master's Certification Program
____Other (please describe)_____

3 Your age ____

4 The grade levels at which you have had field placements (check all that apply)
____None
____Preschool
____Kindergarten
____First Grade
____Second Grade
____Third Grade
____Other (please describe)_____

5 The grade level you ideally would like to teach (check one)
____Preschool ____First Grade ____Third Grade
____Kindergarten ____Second Grade ____Other (please describe)_____

11. setting you ideally like to teach [illegible]

_____ Noninclusive Regular Education _____ Special Education _____ Inclusive

7. Your sex (circle one) M F

8. Your ethnicity (check one)
_____ White _____ Black _____ Other (please describe)_____
_____ Hispanic _____ American Indian

Please complete this section of the questionnaire by circling the response on the following continuous scale that most nearly reflects YOUR PERSONAL BELIEFS about the appropriateness of the item in early childhood settings

	1 Not Appropriate At All	2 Not Very Appropriate	3 Fairly Appropriate	4 Very Appropriate	5 Extremely Appropriate
1	It is ____ for teachers to motivate children's learning and behavior through the careful use of rewards and punishment in the classroom			1 2 3 4 5	
2	It is ____ for teachers to use rewards to change behavior			1 2 3 4 5	
3	It is ____ for teachers to set class goals for achievement and throw a pizza party when a predetermined goal is met			1 2 3 4 5	
4	It is ____ for teachers to point out and use unpleasant consequences for aggressive behaviors (e.g. hitting) in front of the class.			1 2 3 4 5	
5	It is ____ for teachers to sometimes ignore the behavior of students who are breaking the rules.			1 2 3 4 5	
6	It is ____ for teachers to sometimes ignore the behavior of students who are displaying aggressive behaviors (e.g. hitting)			1 2 3 4 5	
7	It is ____ for teachers to give students prizes (e.g., stickers toys trinkets) who complete their work on time			1 2 3 4 5	
8	It is ____ for teachers to use unpleasant consequences to deter future misconduct.			1 2 3 4 5	
9	It is ____ for teachers to grant special privileges (e.g., line leader) to children who are displaying appropriate behaviors			1 2 3 4 5	
10	It is ____ for teachers to use rewards (e.g., stickers) to enhance children's internal motivation			1 2 3 4 5	
11	It is ____ for teachers to praise students for appropriate behavior			1 2 3 4 5	

1 Not Appropriate At All	2 Not Very Appropriate	3 Fairly Appropriate	4 Very Appropriate	5 Extremely Appropriate

12. It is ____ for teachers to promote children's social-emotional development by using rewards (e.g. stickers)	1	2	3	4	5
13. It is ____ for teachers to point out inappropriate behavior (e.g., breaking classroom rules) in front of the class	1	2	3	4	5
14. It is ____ for teachers to take away privileges for breaking the classroom rules	1	2	3	4	5
15. It is ____ for teachers to use unpleasant consequences to set an example for other students	1	2	3	4	5
16. It is ____ for teachers to reward the entire class appropriate behavior by granting extra playtime.	1	2	3	4	5
17. It is ____ for teachers to promote children's social-emotional development by using praise	1	2	3	4	5
18. It is ____ for teachers to paddle students who hit other students	1	2	3	4	5
19. It is ____ for teachers to use unpleasant consequences (e.g. name on board) with children who don't follow classroom rules	1	2	3	4	5
20. It is ____ for teachers to reward appropriate behavior with prizes	1	2	3	4	5
21. It is ____ for teachers to paddle students who break classroom rules	1	2	3	4	5
22. It is ____ for teachers to ignore "acting out" behaviors	1	2	3	4	5

Please complete this section of the questionnaire by circling the response on the following continuous scale that most nearly reflects YOUR PERSONAL BELIEFS about the behavioral technique or practice described in the following examples.

1 To reduce Christopher's habit of using his cupped hands to toss water out of the water table, Mrs. Jackson has told Christopher that each day he plays without throwing water out of the table, he may be table washer after snack time (a responsibility in which Christopher delights)

Please circle one of the following

A	B	C	D
The technique or practice is very inappropriate	The technique or practice is somewhat inappropriate	The technique or practice is somewhat appropriate	The technique or practice is very appropriate

Would you use this technique or practice? (circle one) YES or NO
Why or why not?

2 Six year-old Teddy has trouble paying attention during morning circle time. He often rolls around on the floor or has his back toward the teacher. The other children in Teddy's class laugh at Teddy's behavior resulting in total disruption. His teacher, Ms. Aaron, has tried changing Teddy's location in circle time and has attempted to use prompts to maintain his attention with little success. She is confident that the circle time activities are interesting and appropriate. She has now decided that when Teddy exhibits these off task behaviors, she will send Teddy to time-out until he is ready to pay attention and participate with the rest of the class.

Please circle one of the following

A	B	C	D
The technique or practice is very inappropriate	The technique or practice is somewhat inappropriate	The technique or practice is somewhat appropriate	The technique or practice is very appropriate

Would you use this technique or practice? (circle one) YES or NO
Why or why not?

3 Mr Hal is at his wits end Bobby is disruptive during morning circle time each day To reduce Bobby's disruptive behavior during morning circle Mr Hal decides that if Bobby can be a good listener and participate with the rest of the class he is awarded a token Bobby can later trade in a specified number of earned tokens for various prizes and trinkets Mr Hal makes sure that he praises Bobby each time he awards a token

Please circle one of the following

A	B	C	D
The technique or practice is very inappropriate	The technique or practice is somewhat inappropriate	The technique or practice is somewhat appropriate	The technique or practice is very appropriate

Would you use this technique or practice? (circle one) YES or NO
Why or why not?

4 When five year old Sally remembers to put the caps on the classroom markers Ms. Tarrant says "Sally you put the markers back in their caps. I'm pleased Now the markers won't get dried up They will be fresh and ready when someone else chooses to use them "

Please circle one of the following

A	B	C	D
The technique or practice is very inappropriate	The technique or practice is somewhat inappropriate	The technique or practice is somewhat appropriate	The technique or practice is very appropriate

Would you use this technique or practice? (circle one) YES or NO
Why or why not?

5 During large group time Mr Clark's kindergarten class is having trouble remembering to raise their hands When children shout out Mr Clark simply ignores their behavior and makes sure he calls on a child with his or her hand raised

Please circle one of the following

A	B	C	D
The technique or practice is very inappropriate	The technique or practice is somewhat inappropriate	The technique or practice is somewhat appropriate	The technique or practice is very appropriate

Would you use this technique or practice? (circle one) YES or NO
Why or why not?

6 Ms Watford is extremely frustrated with her second grade class's behavior She decides to implement a new classroom management technique When a child breaks one of the class's rules his/her name is placed on the board If a child breaks additional rules he/she receives checks by his/her name When a child receives two checks he/she loses recess When he/she receives three checks he/she is sent to the principal

Please circle one of the following

A	B	C	D
The technique or practice is very inappropriate	The technique or practice is somewhat inappropriate	The technique or practice is somewhat appropriate	The technique or practice is very appropriate

Would you use this technique or practice? (circle one) YES or NO
Why or why not?

Comments

Thank you for your time.

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